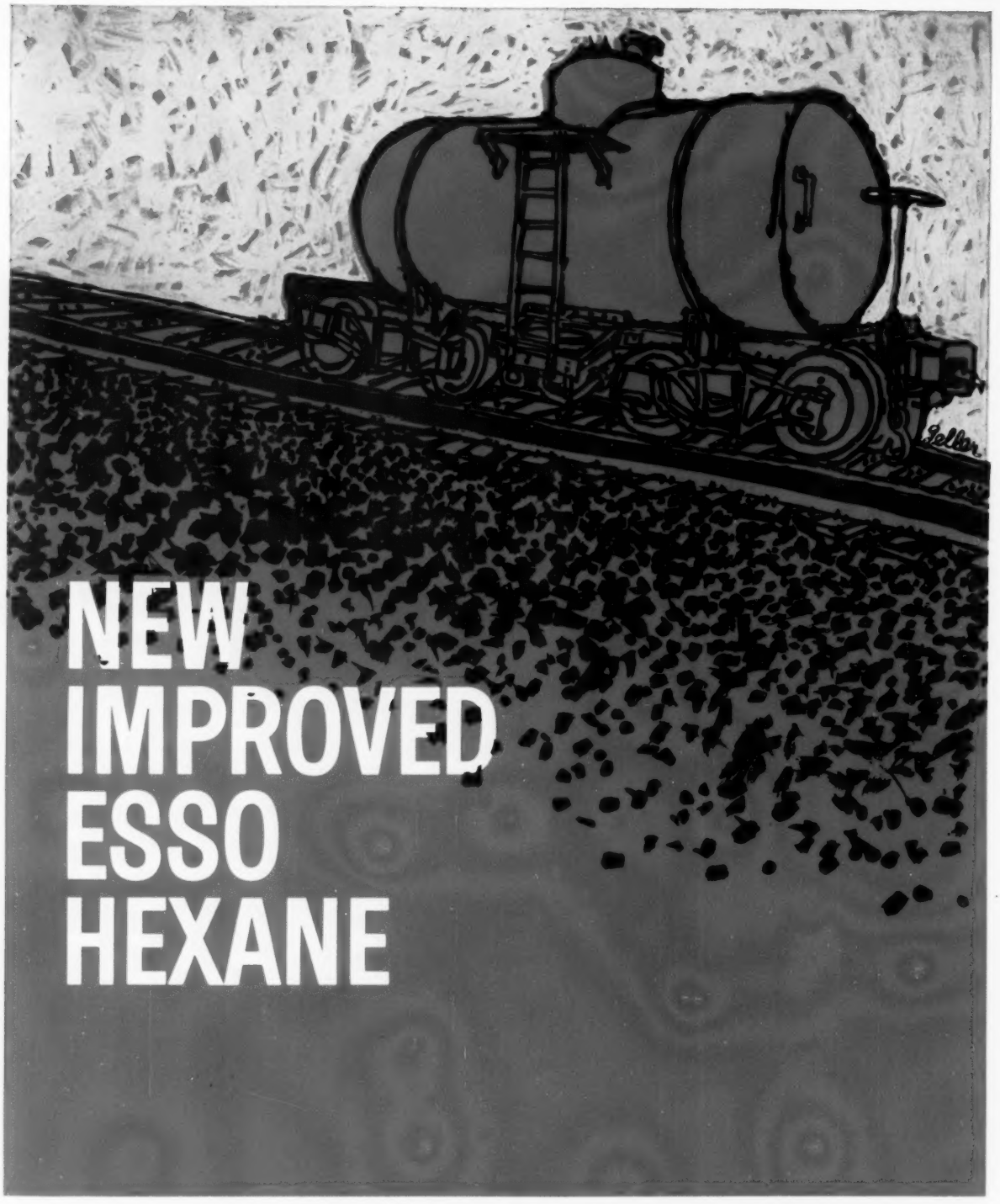
THE Soybean Digest

We need your advice on a matter of vital importance. See page 16.

Introducing Sonja Soya of the Soybean Council. See page 22.

OCTOBER • 1959

VOLUME 19 • NUMBER 12



NEW IMPROVED ESSO HEXANE

WHY NOT TRY A TANK CAR?

For details or specifications write: Esso Standard Oil Company, Solvents Division, 15 W. 51st St., New York 19, N. Y. Available from storage in Bayonne, Baytown, Memphis, & Providence.

Esso

PETROLEUM SOLVENTS

In industry after industry..."ESSO RESEARCH works wonders with oil"

THE Soybean Digest

REG. U. S. PAT. OFF.

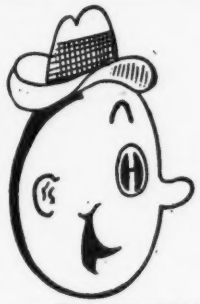
Official Publication of American Soybean Association and Soybean Council of America, Inc.

HUDSON, IOWA

VOL. 19 October, 1959 No. 12

IN THIS ISSUE

Editor's Desk 4
GEO. M. STRAYER
Soybean Oil in World Markets 6
D. J. BUNNELL
Need Big Expansion in Canada 9
News in Brief 11
Recent Progress in Soybean Utilization Research 14
J. C. COWAN AND W. C. WITHAM
Our Protein Reservoir 16
FRED H. HAFNER
Your Ideas Solicited on ASA Conventions 17
Factors Influencing Prices of Soybean Meal 18
Merit: New Canadian Soybean Variety 20
Soybean Council of America, Inc. 21
Big Interest in Madras Exhibit 21
Introducing Sonja Soya 22
Japanese American Soybean Institute 23
Urge Liberalization of Japan Imports 23
SHIZUKA HAYASHI
Crop Report 24
Grits and Flakes 26
Publications 28
Soybean Oil Can Prevent Bloat 28
Feeding 28
September Markets 30
Washington Digest 32
PORTER M. HEDGE
Market Street 33
New Products and Services 34
In the Markets 35
Index to Volume XIX 37



Little ASA Sez:

Because the months ahead are critical ones for soybeans, you can't afford to miss out on the up-to-date and reliable information contained in—

LATE NEWS

This "LATE NEWS" bulletin, published 32 times a year is mailed to you via **First Class** to reach you at the earliest possible date and brings you the very latest information on crop movement, Washington legislation and the market outlook.

Keep ahead of the parade—Only $7.50 will start LATE NEWS coming your way this week.

Mail your remittance to: American Soybean Ass'n, Hudson, Iowa.

See Special Coupon on Page 24

THE SOYBEAN DIGEST

EDITOR ..... *Geo. M. Strayer*

MANAGING EDITOR ..... *Kent Pellett*

BUSINESS MANAGER ..... *Geo. McCulley*

CIRCULATION MANAGER *David B. Bramson*

OFFICES

Business, publication and circulation, Hudson, Iowa. TAylor 5-3296.

Advertising, Ewing Hutchison Co., 35 E. Wacker Drive, Chicago 1, Ill., ANdover 3-3042.

Published on the 10th of each month at Hudson, Iowa, by the American Soybean Association. Entered as second class matter Nov. 20, 1940, at the post office at Hudson, Iowa, under the Act of Mar. 3, 1879.

Forms close on 20th of month preceding.

Subscription rates—$3 per year; Canada and other members of the Pan American Union, $3.50, other foreign, $4. Single copies 30c. Subscriptions accepted from members only.

Refer all address changes, undeliverable copies and subscriptions to the Soybean Digest, Hudson, Iowa.

THE AMERICAN SOYBEAN ASSOCIATION

EXECUTIVE OFFICES: *Hudson, Iowa*
PHONE: *TAylor 5-3296*

CABLE ADDRESS: *Agriport, Hudson, Iowa*

PRESIDENT
C. G. Simcox, Assumption, Ill.

VICE PRESIDENT
C. V. Simpson, Waterville, Minn.

EXECUTIVE VICE PRESIDENT AND SECRETARY-TREASURER
Geo. M. Strayer, Hudson, Iowa

ASSISTANT TO THE EXECUTIVE VICE PRESIDENT *David R. Farlow*

DIRECTORS: Jake Hartz, Jr., Stuttgart, Ark; C. G. Simcox, Assumption, Ill.; Hubert W. Baker, Dalton City, Ill.; John H. Butterfield, Pana, Ill.; Ersel Walley, Fort Wayne, Ind.; Chester B. Biddle, Remington, Ind.; Geo. M. Strayer, Hudson, Iowa; Howard L. Roach, Plainfield, Iowa; Harry Gatton, Jr., Rumsey, Ky.; Walter M. Scott, Jr., Talullah, La.; John W. Evans, Montevideo, Minn.; Charles V. Simpson, Waterville, Minn.; Glen Myers, Memphis, Mo.; O. H. Acom, Wardell, Mo.; John Sawyer, London, Ohio; David G. Wing, Mechanicsburg, Ohio; W. M. Wallace, Woodslee, Ontario, Canada.

Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safeguarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the members of the Association.

EDITOR'S DESK

. . . By GEO. M. STRAYER

A REAL ADVANCE IN P. L. 480 The Public Law 480 bill passed by Congress in the closing days of the recent session, and now signed by the President, contains several provisions that are new and meaningful. The set-aside of funds for market development work is particularly significant, for it makes available for a 3-year period a specified percentage of all funds accrued from the sale of surplus agricultural commodities.

The new bill also gives some small recognition to the proper usage of U. S. stocks of food and fiber as a means of implementing our programs designed to assure world peace. If it is true that "Communism is hunger articulate," then the United States has a weapon far greater than moon rockets or space weapons. We must use that weapon—food supplies—wisely.

Our Defense and State Departments have not yet recognized the potential value of the weapon which is characterized by our terminology of "surpluses." They refuse to regard food as a weapon to be used in winning the battle for peace. Even Khrushchev recognized it in some of his speeches here in the United States, as he boasted about Russia's determination to surpass us in production of farm products.

The new P. L. 480 law, which becomes effective Jan. 1, 1960, offers vast possibilities for furthering peace. And it also offers vast possibilities of developing markets for the products of American agriculture in countries where no markets have previously existed. As those markets become dollar markets—as the countries themselves become able to buy for dollars, as already happened in several countries—we see the vindication of P. L. 480. The funds set aside for market development work must be used in those countries which offer potential dollar sales.

CONSTRUCTIVE ACTION BY COMMODITY Recent action by Commodity Stabilization Service officials in announcing the sales program on 1957 and 1958-crop soybeans in CCC hands is to be commended. A sales price of 20¢ per bushel above 1959-crop support prices in all areas tends to insulate CCC stocks from the market during the harvest season—until market prices bounce to levels 20¢ above supports. At the same time the announcement makes it known to buyers at home and abroad that CCC stocks of soybeans are for sale, that there will be no "fire sales" on them, but that they will be integrated into market channels as and if prices permit. It is most desirable that these carryover stocks be moved during the coming year, so that we wipe the slate clean before 1960-crop harvest.

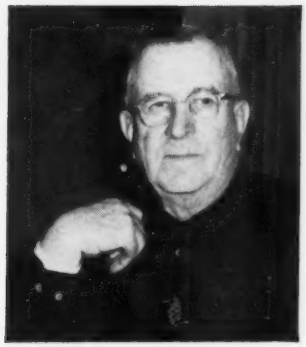
Sales policy after Jan. 1 will be announced after the carryover stocks are known, the 1959-crop figures are more accurate, and the market trends analyzed. CSS officials have promised us that American Soybean Association representatives will be consulted before that decision is made. A wise decision at that time will permit sales of all CCC stocks and at the same time insure a favorable market for soybeans from Jan. 1 onward.

SHOULD NOT JEOPARDIZE JAPAN MARKET Morning glory and bindweed seeds contained in U. S. soybeans shipped to Japan and used in the manufacture of food products have reared their ugly heads again. Two cargoes were held up by customs authorities under the allegation of excess content of these seeds. Both were destined to go into food manufacture. There is considerable question about the level at which such seed content becomes harmful or deleterious. Certainly it is above the levels contained in these cargoes.

But we are again subjecting our product to unnecessary criticism, are jeopardizing our markets, giving the impression that all U. S. soybeans contain these weed seeds in quantity. Expense is involved for both buyers and sellers. And, even more important, we are merely adding fuel to the fire for buyers in Japan who would like to resume purchases of soybeans from Red China, helping them in their campaign.

MAY MEAN BETTER MARKETS One bright spot in the market picture is the proposal now being considered in Japan which would free the importation of soybeans from the United States. Even though we have been the largest supplier to that country, all imports of soybeans from the United States have been on a dollar allocation basis, and thereby severely limited. Other oilseeds imported into Japan, as well as soybeans from other sources, have been on the free or "Automatic Allocation" basis.

Should U. S. soybeans be placed on the A. A. basis for the last half of the Japanese fiscal year we may see a somewhat different pattern of purchases taking place. Total purchases will be determined by demand of the Japanese people. No longer will the government determine the tonnage—the buyers will do so. Expanded markets could well result—and in my estimation definitely will.



"I've got '52 corn in Butler Storage and it's still in top condition..."

"And you can't beat that for safe storage." These are Fred Seitz's own words. Fred owns and operates the Farmers Grain Service Inc. at Grand Ridge, Illinois.

He bought his first Butler flat storage building in 1950. He was so pleased with it, that as the demand for storage space increased, he kept adding more Butler flat storage. Today he stores over 700,000 bu. in 7 Butler buildings and in all this time water damage and insect infestation has never been a problem . . . he's never spent a nickel on building maintenance. And he plans to keep right on expanding, as needed, with Butler flat storage buildings.

If you're planning to add flat storage this year, investigate Butler grain storage buildings before you buy. Don't gamble your grain investment in unproven . . . doubtful storage. Only Butler storage gives you the protection you need for really safe, really profitable grain storage.

If you want, call Fred Seitz at our expense. His phone number is Grand Ridge, Illinois 9-5515. And get the truth about Butler storage right from him.

Or, call your nearby Butler Builder. He'll be glad to give you complete details and prices on Butler flat storage buildings, the finest . . . lowest-cost safe storage you can buy. Or write directly to us for literature.

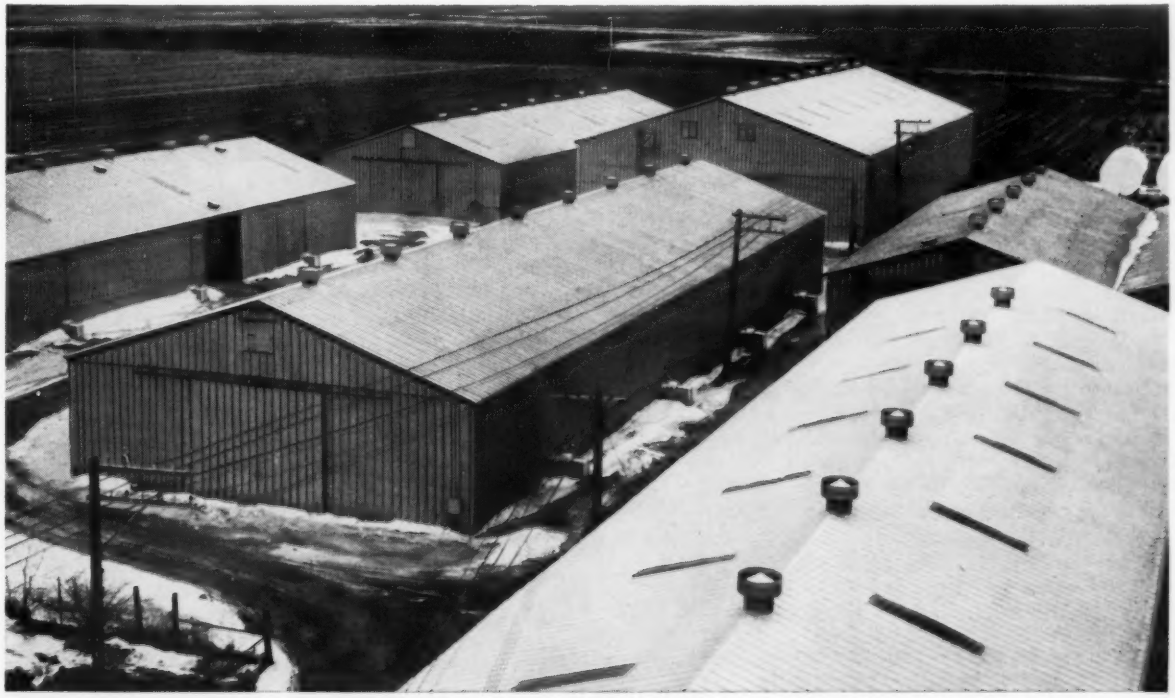
BUTLER

BUTLER MANUFACTURING COMPANY

7461 East 13th Street, Kansas City 26, Missouri

Manufacturers of Metal Buildings • Equipment for Farming, Oil Production and Transportation, Outdoor Advertising • Contract Manufacturing

Sales offices in Los Angeles and Richmond, Calif. Houston, Tex. • Birmingham, Ala. • Kansas City, Mo. Minneapolis, Minn. • Chicago, Ill. • Detroit, Mich. Cleveland, Ohio • Pittsburgh, Pa. • New York City and Syracuse, N.Y. • Boston, Mass. • Washington, D.C. Burlington, Ontario, Canada



D. J. Bunnell

U. S. SOYBEAN OIL IN World Markets

From Mr. Bunnell's speech before the National Soybean Processors Association

By D. J. BUNNELL
Buying Vice President, Lever Brothers Co.

THE USE OF soybean oil as an important raw material in the manufacture of vegetable shortening began in the 1930's. This market has had a remarkable growth. Last year 34% of our domestic consumption of refined soybean oil was used in shortening.

After a slow start, margarine now provides a very important market for soybean oil. Last year 34% of our domestic soybean oil consumption went into margarine, representing 84% of the fat composition of this product.

The fact that 68% of our total domestic consumption was used in these two food products and only 15% in mayonnaise and dressings reveals that the large salad oil field has used only minor quantities of soybean oil. Intensive technical research should find the answers to make soybean oil more acceptable for broader food uses. Soybean oil demand came to you processors from shortening and margarine manufacturers without any particular effort on your part. This salad oil field is different, already supplied with oils of long usage and strong preference.

If domestic outlets for soybean oil are to broaden more rapidly, you soybean processors must lead the way in energetically attacking the problem. But, still, the remarkable growth of our domestic soybean oil consumption kept pace with your industries very rapidly expanding production, until 4 years ago. The big, stable and ever increasing market here at home is one of your industry's greatest assets.

Our production of soybean oil during the current season will total about 4,260 million pounds. Domestic consumption will amount to an impressive 3,250 million pounds. To the excess production of 1 billion pounds of soybean oil should be added 400 million pounds of cottonseed oil, making a combined surplus over domestic needs of 1.4 billion pounds.

For the coming season the gross production surplus of the two oils is likely to approach 2 billion pounds. Export demand from "dollar" markets may be smaller for both cottonseed oil and soybean oil. The remaining surplus available for disposal through "aid" programs may reach the formidable total of 1,600 million pounds. This is our surplus problem.

Oil Surpluses

Oil surpluses began to appear as early as 1951-52, caused basically by the increasing production of soybean oil. For 4 years the increasing production was temporarily offset by drawing off 1.4 billion pounds of oil under the cottonseed package programs. With the virtual liquidation of these CCC cottonseed oil stocks in late 1955, the Public Law 480 program was extended to soybean oil and some 450 million pounds were shipped to aid countries in 1955/56.

Each subsequent year has seen expansion of P. L. 480 and ICA shipments, whereas sales of soybean oil to dollar markets have remained very small. These aid shipments have gone mainly to new markets—countries which previously imported very little edible oil from any source—and there is very little question but that these additional markets would not have opened up without these programs.

Overall consumption has increased in these markets, but we must recognize that this expansion of our exports has depended not only on financial aid but partly also on temporary factors such as local production shortfalls as in the Mediterranean, Argentina and Yugoslavia. This in no way detracts from the energy and initiative of the Washington agencies and of industry groups which have assisted in promotional activity. The program has been successful but unfortunately it has meant that we have put most of our eggs in one basket.

Our experience with this method of disposal has not been without its difficulties. I refer to the timing of contract placements with foreign countries and the subsequent delays of the export movement that so frequently occur. The fact that obscure delays do take place causes some disturbance in the soybean oil market. A domestic refiner must operate with extreme caution in fear of some unexpected development. Regardless of this, let us say, mild complaint, P. L. 480 has provided export movement of soybean oil that avoided accumulation of unmarketable surpluses and prevented extreme market weakness.

Enough of what has happened. Let us look ahead to next season. Assuming favorable weather over the next few weeks, new crop production of soybeans may be about 10% below last year's record. Combined with this season's carryover, this should give us a supply almost equal to that of 1958-59, or a little below 600 million bushels. The continuing increase in processing capacity would indicate a higher rate of crush.

I suppose the meal will find a home since livestock and poultry trends still point to greater numbers. Moreover additional protein usage is possible through the further expan-

sion of improved feeding. Feed demand should absorb increased tonnage, especially if we may assume that the price of meal will remain competitive to other feed materials.

Some decrease in domestic soybean oil consumption will probably take place next year. Increase in lard production of nearly 270 million pounds will cause this commodity to be more competitive. The large cotton crop will increase cottonseed oil by 250-300 million pounds. The lower support price for cottonseed, if the full difference is charged to cottonseed oil, amounts to 2¢ per pound below 1958-crop oil. This may allow cottonseed oil to regain some of the ground it has lost during the years of severe cotton acreage restriction.

Lard production this year will go slightly over 2,700 million pounds or 625 million pounds in excess of domestic usage. Exports absorbed 600 million pounds with 45% going to west Europe (mainly United Kingdom). The coming year will see an increase in production of 10%. This means an excess over current consumption levels of almost 900 million pounds. Unwieldy stocks can be avoided only by larger exports. American lard is now the cheapest edible fat in the world. Under these circumstances larger shipments of bulk lard to the United Kingdom seem assured but there is only limited scope for such marketing in the rest of western Europe.

World Situation

Since the United States will have large surpluses, beyond domestic needs, in three categories of edible fat production, we must look to the world situation to better understand our position. Europe is by far the largest fat and oil importer. There is no edible vegetable oil that is exported that does not find its major market in the margarine consuming countries of Europe. The same countries are the preponderant outlet for edible purposes of whale, herring and sardine oil.

While northern Europe and the United Kingdom use butter in good volume, the per capita consumption of margarine exceeds any place in the world. Vegetable shortening is relatively unimportant except in the United Kingdom.

Apart from the compulsory use of rapeseed oil where the domestic oilseed is protected, as in Germany and Sweden, the margarine and shortening industries rely almost entirely on imported oilseeds, oils and fats.

Under tariff preference systems, some European countries look to established sources for the major portion of their oil supplies. France imports her peanuts and oil needs from French West Africa and controls the production. In very much the same way the United Kingdom attracts peanuts and peanut oil out of Nigeria, likewise palm kernels, palm oil and palm kernel oil. Belgium looks to the Belgian Congo. West Germany, with largest oil consumption of any European country, without overseas territory, must buy her oils on a competitive basis in the the world markets.

Europe is not yet inclined to consider the United States in the same light as her older and non-dollar sources of supply but rather as a seller of surpluses when they become burdensome. It is here that the Soybean Council has done valuable spade work but much remains to be done.

No discussion of fat consumption in northern Europe and the United Kingdom is complete without reference to butter. During 1957 and 1958, because of international butter surpluses, larger quantities entered the United Kingdom import market for a time at prices below cost of production. The retail price of butter even fell below some margarine brands and by 1958 the consumption of margarine was some 63,000 tons or 16% below the 1956 level.

The corresponding decline in West Germany was 40,000 tons, or 6%. There was some contraction in Denmark and Sweden, but elsewhere in western Europe the margarine business held its own. In the early months of 1959 a further contraction of 3% took place in western Europe. Butter surpluses have since decreased, prices have advanced some, and the situation is now more stable.

Margarine consumption for the last half of 1959 will exceed the 1958 level but compared with 1956 the margarine industry will use some 66,000 tons less fat, on an annual basis.

Eleven western European countries in 1958 consumed 6,300 million pounds of fats and oils in margarine, shortening, confectionery fats and salad or cooking oils. Consumption in 1959 will total about the same. But over the past 12 months, coconut oil usage declined by about 250-300 million pounds because of the shortage of copra. The consumption of liquid oils increased—namely, peanut oil, cottonseed oil and soybean oil. In recent months the use of low-priced American lard has begun to increase in the British margarine and shortening industries.

Of this large oil consumption in 11 European countries, the liquid oil total (peanut, cottonseed, and soybean oil) amounted to 3,400 million pounds, of which 540 million pounds were soybean oil. The use of soybean oil in the cheaper brands of margarine has long been a sizable tonnage in northern Europe. Further expansion of the use of soybean oil will be limited not only by the competition of American lard but also by the resistance of those responsible for marketing the premium brands of margarine.

In southern Europe and countries that circle the Mediterranean the olive tree has been the major edible oil source since the beginning of history. Margarine, shortening and lard are little known. If the olive crop is good little is required from the outside. Large production years make possible the carryover of surplus supplies into years of poor production.

480 in Spain, Turkey

P. L. 480 has been most successful in Spain and Turkey where there have been modest advances in industrialization and living standards. Still, there is a correlation between the off and on years of the olive production cycle. It has not been established that we can depend on a continuance of heavy volume exports where there is abundant olive oil production. Further improvement in the standard of living will be the best influence to create markets that are dependable.

Now let us return to U. S.-produced soybeans. Exports of soybeans have increased steadily in recent years, from 32 million bushels in the crop year 1952-53 to over 100 million bushels exported for the current season. This buildup of the demand for U. S. soybeans has come largely from Europe, Japan, and Canada.

It appears that our exports will continue to increase, as long as China remains only a minor and unreliable source of supply for the free world. In our major soybean export markets there is little evidence of shifting from beans to oil

in regard to their purchases from the United States.

This strong preference for soybeans, on the part of importing countries, can easily increase exports during the coming season. If we combine this possible increased export requirement with the likely increase in the domestic crush, the total demand for beans would seem to be fully equal to the prospective supply of the crop year ahead. The outlook may be a closely adjusted supply-demand position before the end of the 1959-60 season.

Exportable Surplus

In strong contrast to soybeans, the outlook for soybean oil is that of an exportable surplus well above the exports for the current season. During the present crop year, exports of soybean oil and cottonseed oil seem likely to total about 1,350 million pounds, of which 925 million pounds would be soybean oil and 425 million pounds cottonseed oil.

Seventy-five percent of these total shipments have been financed under P. L. 480 and ICA programs, while 25% sold for free dollars. The dependence on aid programs in the case of soybean oil has been 89% of total shipments, while for cottonseed oil it has been 44%. Taking the two oils together, about 53% of total exports will have gone to Spain, Italy and Turkey while Yugoslavia and Poland will account for 11%.

Our export sales of soybean oil for free dollars total little more than 100 million pounds, mostly to Canada, Latin America and Morocco while only 20 million pounds went to northwest Europe, for here the need was supplied in soybeans. At the same time the dollar exports of cottonseed oil to northwest Europe amounted to 200 million pounds and about 30 million pounds to Canada and Latin America.

In the major importing area of northwest Europe, which receives little or no P. L. 480 or other aid, there are signs that soybean oil may gradually come to be accepted in its own right as a component of margarine. For the short term, certainly in the premium brands of margarine, technical objections and popular prejudices will doubtless continue. Soybean oil may partially replace other soft oils (peanut and cotton), but this is much less certain in respect to palm, palm kernel and coconut oil.

Over the last 12 months soybean oil has been favorably priced because high lauric oils have been in short supply. The shift from coconut and palm kernel oil to peanut oil tightened the European peanut oil market. This combination of circumstances caused West Germany to increase her buying of U. S. cottonseed oil during the 1958-59 season.

Now there are signs that the coconut oil supply will shortly begin to recover enough to bring a partial shift away from "soft oils." Here again soybean oil may be affected. If, however, soybean oil usage should increase amid such competition, the difference would probably be supplied in the form of soybeans from the United States or China.

In Europe a growing local market for soybean meal is now developing with the new growth of their "infant" broiler industry. In the crop year 1958-59, western Europe will have produced 475 million pounds of soybean oil from American beans. Added to this total have been some unimportant quantities of soybeans from China.

Because there is unused crushing capacity, western Europe's primary interest will continue to be soybeans. Crushers in Germany, Holland, Belgium and Denmark buy American soybeans free of duty and can usually offer oil below the duty-paid cost of soybean oil produced in America. Much will depend on the future course of meal markets on each side of the Atlantic but it would take an unexpected development to bring even limited increase in the demand for U. S.-produced soybean oil.

Olive Oil Outlook

The Mediterranean countries have a good outlook for olive oil production at this time. If the present crop prospect is maintained, it would seem highly unlikely for Spain to be anything like the buyer of soybean oil it has been this year. This is especially true since undelivered shipments on current contracts for soybean oil will not arrive until late fall or early winter.

The export outlook to Poland and Yugoslavia can be expected to remain unchanged. A continuing P. L. 480 market will exist in Pakistan and perhaps Burma, but for cottonseed oil rather than soybean oil. Much work must be done to establish acceptability of soybean oil in this whole area. Our shipments of soybean oil to Morocco this year were aided by the relatively high price of peanut oil in the world market. Next season the position can be expected to be more competitive but we should be able to maintain our shipments of soybean oil.

The United Arab Republic has the need, and since experience will be gained because of business consummated this summer, there is reason to anticipate continuation of trading in 1960 if political relations permit.

In the Western Hemisphere some decrease will take place in our oil shipments to Canada because of an increase in the local production of vegetable oil and animal fat. Mexico has been disappointing, but prospects are not completely dead.

In our normal Caribbean and Latin American markets, local oilseed producers will continue heavily protected but, still, some P. L. 480 possibilities do exist. Brazil is a problem area but there is some potential for P. L. 480. European-produced oils and Dutch refined lard compete in several of these markets but U. S. soybean and cottonseed oil could make a better showing.

Heavy P. L. 480 shipments will shortly be scheduled for Argentina and there will be requirements to be met in Chile. The main preference heretofore has been cottonseed oil. Strenuous promotional efforts will be needed to develop any sizable soybean oil market in this area. It is a temporary market anyway with most of the business to be done this fall and winter. Unless adverse weather affects crops again, no repeat can be expected in 1960.

In India, oilseed production is falling behind the rapid growth in population. Fat consumption is very low but so is purchasing power. There is increasing evidence that India's import potential for cottonseed and soybean oil may, before long, be translated into an effective program. But I cannot be too optimistic about the possibilities for the coming year.

Unexpected Markets

Past experience has shown how new markets can unexpectedly develop. Until we know more about 1959-60 supplies in other countries, it is impossible to evaluate our export prospects accurately. As the situation appears today, it will be quite an impressive achievement if next season's exports of the two vegetable oils equal the 1,350-million-pound total estimated for 1958-59. Under these conditions the 1960 carryover of soybean and cottonseed oil could range from 500 to 600 million pounds. Although this could well be offset by the likely decrease in the oil equivalent of the 1960 soybean carryover, such a heavy oil

Scenes at the Ralston Purina Party

PICTURES taken at the Ralston Purina Co. party for processors and producers at Checkerboard Square, St. Louis, during the joint National Soybean Processors Association-American Soybean Association meetings in August. At left, a dance step is executed by Purina girls and guests. At right a group of agronomists with John E. Bligh, Queensland, Australia, producer, second from left. Agronomists are, from left, Leonard Williams, Missouri; Herbert W. Johnson, Beltsville; C. R. Weber, Iowa; John Dunleavy, Iowa; and Edgar E. Hartwig, Mississippi.

surplus stock would be very unsettling.

The road into 1960 will not be easy. The problem is similar for the crushers of both soybeans and cottonseed in that disposal of the oil surplus presents more difficulty than does the disposal of the protein. More severe competition between soybean, cottonseed oil and lard can hardly be avoided. While low prices would adversely affect processor margins, export markets would be more easily attracted, provided foreign oil markets do not show a similar decline.

I cannot conclude without referring to another possibility. Hog and poultry producers are likely to operate under very slender margins. If oil and meal proceeds decline more than the cut in the oilseed support levels, it is possible that we could see the government re-enter the cottonseed market, or a buying program could emerge for soybean oil.

With all these imponderables and while government oil programs would be deplored, a realistic viewpoint must give thought to this contingency. I have always been given to understand that we learn more and grow stronger when there are difficulties to overcome. You seem to be approaching such a period. It is a challenge to be met with resourceful courage and foresight that well could result in a more vigorous, robust industry better attuned to the problems of ensuing years.

Need Big Expansion in Canada

IF CANADIAN manufacturers were to use only domestically produced vegetable oils, by 1965 there would be a need for the equivalent of 2 million acres of soybeans compared to the 250,000 grown at present, said Robin E. Merry, president of the Institute of Edible Oil Foods, Toronto, in a recent address.

Since Canadian dairy herds are remaining static in size, "it can be clearly seen that as more and more fluid milk will be required for our expanding population, less cream will be available for butter," Merry noted. "Thus it appears inevitable that Canada must look to fats from vegetable oil sources if we are to attempt to become self sufficient in the supply of the necessary fats for our diet.

"At the present time Ontario produces some 60 million pounds of oil from soybeans. This vegetable is also being grown in southern Manitoba and new varieties are being tested in Quebec. The only other edible oil crop of any significance is oil from sunflower seed—about 5 million pounds of which were produced in Western Canada in 1958.

"However, because Canadian soybean growers found it profitable to export soya, the combined available domestic oil from both soybeans and sunflower seed amounted to only a fraction of the over 300 million pounds required for margarine, shortening and other edible oil foods consumed in Canada in 1958.

"Soybeans can produce three times as much fat per acre as can a cow—150 pounds to 46 pounds," Merry noted.

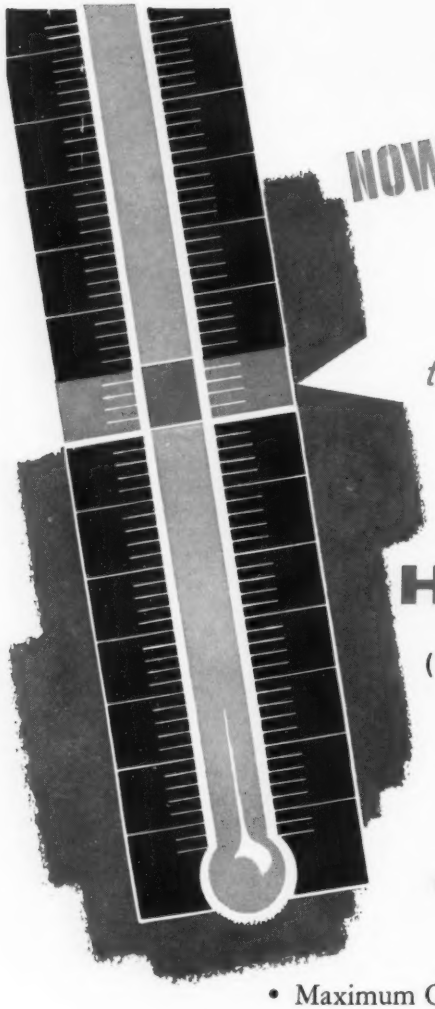
Two million acres of soybeans grown in Canada would mean a revenue to oil farmers of $100 million, or nearly eight times the value of soybeans grown in 1958, said Merry. "Where else in Canadian agriculture does such an opportunity for expansion exist?

"It is unreasonable to expect that such a fantastic growth from 250,000 acres to 2 million acres could take place in a few years or that all such domestically produced oil would be absorbed in Canada."

Merry suggested that the farmer must be assured the greatest possible market for the oil crops that he grows, and urged that federal and provincial legislation that restricts or prohibits the sale of edible oil products be repealed at once.

"One of the most important end products, margarine, is banned from Quebec and Prince Edward Island. In Nova Scotia, New Brunswick, Ontario, Manitoba and the other prairie provinces, it is subject to restrictions against coloring."

Merry said if the respective governments would remove these discriminatory laws "they will be benefitting not only agriculture but many millions of housewives."



NOW OLEFIN-FREE...LOW AROMATICS!

Extractors who check the Boiling Range use

ESPESOL Normal HEXANE *and* HEPTANE

(152°—156° F Typical) **(201°—207° F Typical)**

Get these narrow boiling range benefits:

- Maximum Oil Yield
- Better Solvent Separation
- Fewer Emulsion Problems
- No Solvent Residue in Meal
- Improved Operation at Higher Temperature
- Lower Aromatic Content (0.3 typical)
- Low Sulphur Content

Espesol Normal Hexane and Heptane are available for Short Notice delivery from all Eastern States' seven strategically located terminals—by truck, tank car, barge and drum. Call or write today!

ESPECO

Complete Information Furnished on Request

Eastern States Petroleum & Chemical Corporation

U. S. Terminals:

Houston, Texas • Chicago, Illinois • East Liverpool, Ohio
Madison, Indiana • Brownsville, Texas • Savannah, Georgia
Carteret, New Jersey • Los Angeles, California

European Terminals:

Dordrecht (Rotterdam) Netherlands
Livorno (Leghorn), Italy

Post Office Box 5008—Houston 12, Texas—Phone WAlnut 3-1651

New York Office: 10 Rockefeller Plaza, New York, Phone Circle 7-2520
Chicago Office: 1011 Lake St., Oak Park, Illinois, Phone VIllage 8-5410
Cleveland Office: 20800 Center Ridge Rd., Cleveland, Ohio, Phone EDison 3-0188
Louisville Office: 4th and Broadway St., Louisville, Ky., Phone JUniper 3-7634
Atlanta Office: 3121 Maple Drive, N.E., Phone CEdar 3-3227
Los Angeles Office: 110 S. Euclid, Pasadena, Phone MUrray 1-0278

THE NEWS IN BRIEF

THE CROP, MARKETS AND OTHER ITEMS OF NOTE

Seasonal Rise in Price?

The prospective 1959 soybean crop will bring supplies closer in balance with market outlets than last year but will still be large enough to drive farm prices to about support level during harvest, predicts the U. S. Department of Agriculture in an end-of-September report.

But if processor and export demand turns out as strong as expected, soybean prices during 1959-60 should show a fairly good seasonal rise, as **the trade will need to buy old-crop beans from CCC later in the marketing year** in order to satisfy requirements, according to USDA.

In spite of a continued record demand for food fats, bean oil prices during the heavy October-December 1959 marketing period probably will average somewhat lower than a year earlier, reflecting the lowered supports on soybeans and the sharply increased output of competitive cottonseed oil and lard. Soybean meal prices this fall are expected to average near last fall's level.

The 1959-60 total supply of soybeans is now estimated at 588 million bushels—about 7 million bushels less than last year's peak.

Crushings in 1959-60 of around 400 million bushels—about the same as the year before—may provide sufficient quantities of oil and meal to meet domestic and export demand. If farm use runs about 33 million bushels, about 155 million bushels will be available for export and carryover, slightly less than the peak for these combined uses last year. With prices substantially lower and strong foreign demand for soybeans, exports are expected to rise above the 110 million bushels of the past year. **Carryover stocks next Oct. 1 probably will be down substantially from this year,** according to USDA.

Record Fats, Oils Supplies

Early September conditions indicated the supplies of edible fats, oils and oilseeds in 1959-60 will exceed the peak 13 billion pounds (oil equivalent) estimated for the year just ended by about 10%, says USDA. The prospective 27% rise in cottonseed oil output will contribute a large part of the increase although lard production is expected to be up around 11%. The quantity of food fats available will permit substantially greater exports in 1959-60 than the record 3.3 billion pounds estimated for 1958-59.

Harvest Will Be Drawn Out

Although harvest is early in many places this year, it will be a long one. **Harvest is stretching over a 5-week period in Illinois,** J. E. Johnson at Champaign, Ill., notes. He said many of the largest and highest yielding fields were still to harvest the last of September. "Fairly large sections of our large soybean producing areas (hurt by drought) are full 10 bushels below normal."

Rains were delaying harvesting operations over much of the bean belt the last of September. "Practically continuous rain for the past week has curtailed all field operations," stated Howard E. Grow, Farmer Seed & Nursery Co., Faribault, Minn. "Quality should be very good, if harvesting can start in general during the next couple of days."

Quoting North Carolina Weather and Crops: Present prospects are for a better crop than was expected last year at this time, with most reports now rating the crop from good to very good.

It was too early to estimate the extent of hurricane damage to the soybean crop in the Carolinas as the Soybean Digest went to press.

Recommends On-Farm Storage

Arkansas' expected record 53-million-bushel crop will tax storage and handling facilities in that state to the limit during the peak of the harvest period, warns Ruel P. Nester, Arkansas extension agronomist at Fayette-

ville. **"The farmer can avoid distress selling and can have more uniform marketing by using on-the-farm storage,"** says Nester.

Des Moines Register notes too much volunteer corn and too many weeds in Iowa soybean fields. "We need to do a better job of adjusting mechanical corn pickers this fall to prevent so much ear and shelled corn from being left in the field. . . We certainly need better weed control methods before and after the soybean crop is planted next spring."

Nematode Now in Illinois

The soybean cyst nematode has been found in Illinois for the first time —on a farm at Mounds, Pulaski County, USDA and the Illinois State Agriculture Department have announced. Soils on adjoining farms are being inspected and the Illinois Agriculture Department announced it was holding a meeting at the Pulaski County Courthouse, Mounds, to determine the extent of the area to be quarantined.

The nematode has also been found in Ballard County, Ky., for the first time, in addition to Fulton County, where it was already known. Additional infestations have been found on 19 properties in Missouri.

A moderate infestation of corn earworm on soybeans is reported in Alabama, and heavy infestations in Georgia and South Carolina, very serious in some places. Corn earworm infestations are apparently lighter at the present time in Maryland and Virginia.

Look for Heavy Oil Movement

A heavy export movement of edible oils from the United States is likely to result from sales for dollars plus large shipments under P. L. 480 during the coming year, despite an expected large increase in olive oil output in the key program country of Spain, according to USDA's Agricultural Marketing Service. The olive crop in Turkey, another important taker of oil under P. L. 480, is likely to be down this year and we may have a larger program in that country. Also, the tight copra and coconut oil situation may lead to an expansion of dollar exports as well as creation of new P. L. 480 programs. USDA sees P. L. 480 edible oil programs of about 700 million pounds during 1959-60.

Possibility of freeing soybean imports from the United States to Japan was opened up recently in a proposal by the Minister of Finance that 10 commodities, including soybeans, be removed from import controls. Removal of such controls would allow open purchasing, without government control, and might materially increase total imports of soybeans from the United States. (See report by Shizuka Hayashi in this issue.)

Federal inspection service on soybeans and grains produced in the United States and reshipped from Canadian points over the St. Lawrence Seaway is now available, according to Agricultural Marketing Service, USDA. Public hearing on the offering of such services was held some time ago, with the American Soybean Association supporting the proposal.

USDA in September announced issuance to Poland of an authorization to purchase $2.4 million worth of soybean or cottonseed oil under P. L. 480, totaling approximately 7,200 metric tons, contracts to be made between Sept. 17 and Nov. 30, and shipments between Sept. 17 and Dec. 31.

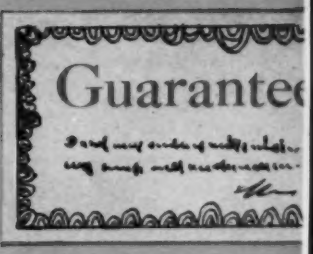
International Cooperation Administration announced issuance of an authorization for purchase of $150,000 worth of soybeans by Spain, contracting date between Aug. 26 and Feb. 29, and terminal delivery date Apr. 30, 1960; also of $5.1 million worth of soybean oil cake or meal, contracting date between Aug. 26 and Mar. 31, and terminal delivery date June 30, 1960.

ICA authorization was issued to Taiwan for purchase of $1 million worth of soybeans, contracting period between Aug. 12 and Oct. 31 and terminal delivery date Dec. 31.

Railroads have offered Ontario soybean producers a reduction in Chatham-to-Toronto rail rates from 31¢ to 15¢ a bushel if they can haul 90% of the crop. So far the proposal is encountering a mixed reaction from producers.

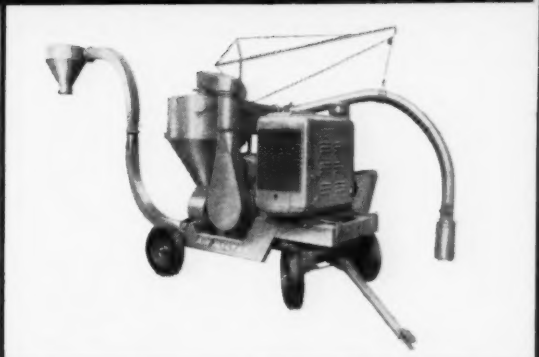
GUARANTEED

to do YOUR Job or YOUR MONEY BACK!



Model F-98 Grainvayor

Model F-88 Grainvayor



The new Grainvayor AIR-MASTER

There's a GrainVayor model that's GUARANTEED to be just right for YOUR Grain Handling Needs

You pick the job. We help you select the Grainvayor that will do it best . . . show you how to plan and run your grain handling operation for maximum effectiveness . . . then *guarantee* the performance of your Grainvayor. Should it fail to do the job as we have specified, our trained Field Service staff will immediately solve your problem. You get your money back if we can't meet the special guarantee we've given you.

Maybe we could get by with just a normal warranty, but we don't think that's good enough for *you*. That's why we *guarantee* the *job* as well as the *equipment* to prove what Grainvayor can do for you.

For less than ½¢ a bushel average *total cost*, including fuel and labor, you can load or unload cars, trucks, bins, buildings, or barges. Best of all, you'll do it quicker and easier than ever before with Grainvayor's fool-proof pneumatic system and simple one-man operation.

Because it's completely portable, you can use your Grainvayor anywhere and move it easily from one job to another. Use it as an added "leg" at track-side . . . "turn" grain in flat storage . . . improve grain grade with automatic vacuum removal of dust, rodent pellets, weevil-cut kernels, live insects, and storage odors.

Start saving money on grain handling . . . make more profit from grain sales. Find out how this *guaranteed* pneumatic conveying method can do both better for you. Just fill in and mail the coupon . . . we'll send you more information on the many Grainvayor models, how they work, what they'll do, and why they'll save you money.

MS

MYERS-SHERMAN CO.

1602 South Illinois Street • Phone: Streator 2-2176

STREATOR, ILLINOIS

MYERS-SHERMAN COMPANY, Streator, Illinois

Gentlemen: Please send me the details on Grainvayors, the only pneumatic conveying method that's *guaranteed* to do my job.

NAME_____

FIRM_____

ADDRESS_____

CITY_____ ZONE____ STATE_____

Presented at the American Soybean Association convention in St. Louis, Mo., Aug. 11

Recent Progress in Soybean Utilization Research

By J. C. COWAN and W. C. WITHAM

Northern Regional Research Laboratory, Peoria

THE RESEARCH program at the Northern Regional Research Laboratory has continued along the same general lines reported on last year (1). This program is designed to gain information vital to increasing the industrial, feed, and food uses of soybeans and their derived products, the oil and meal. We are engaged in studies to improve the flavor stability of soybean oil, to discover and develop new products for nonfood uses, to improve the quality of soybean oil meal, and to develop information which will assist in the export of soybeans to foreign markets.

J. C. Cowan

W. C. Witham

During the past year, considerable attention was devoted to problems related to the use of U. S. soybeans in the traditional Japanese food products. Two Japanese scientists worked at this Laboratory for approximately 1 year through the collaboration of the American Soybean Association and the Foreign Agricultural Service, USDA. Reports on this work are presented separately (2, 3).

In this summary attention will be devoted to flavor stability of the edible oil, new products from soybeans, such as a new protective coating from soybean vinyl ethers, a new research product called aldehyde oil, and finally some of the new information obtained on the composition of soybean oil meal.

Flavor Stability

Past work (4) has shown that linolenic acid is one of the precursors and probably the major precursor of the undesirable flavors in heated soybean oil. Methods which would eliminate the 15,16 double bond in the linolenic acid without eliminating the essential fatty acids, oleic and linoleic, or producing a solid fat could lead to a solution of this problem. Consequently, we have initiated studies on the hydrogenation of glyceryl and methyl esters of this precursor of flavors.

Basic work on hydrogenation of methyl oleate with tritium (radioactive hydrogen) was reported on briefly last year (1). Since then, the work was extended to cover methyl linoleate (5). With linoleic acid esters and without a catalyst, the tritium adds to the unsaturation to give very small amounts of radioactive addition products. Analysis of the products shows the 12,13 unsaturation is the preferred position of tritium addition over the 9,10 unsaturation by a ratio of about 1.4 to 1.0. In other words, the 12,13 double bond has about a 40% greater tendency to add tritium as compared to the 9,10 double bond.

If this preferential addition of tritium to the double bond most remote from the carboxyl group were shown with linolenic acid, the chances of finding selective conditions for removal of the 15,16 double bond would be excellent. However, as so often is true in research, unexpected experimental difficulties were encountered in determining where the tritium added to the linolenic acid. Nevertheless, the work with tritium has been sufficiently encouraging that studies on selective hydrogenation with it in the presence of catalysts are under way.

Soybeans were grown by the Argonne National Laboratory in contact with radioactive carbon dioxide and radioactive water (tritiated water). The oil was extracted and found to be labeled randomly with C^{14} (radioactive carbon) and tritium. It is planned to use this oil in studies on selective hydrogenation and autoxidation of the 15,16 double bond.

Another phase of our research on the flavor stability of soybean oil is concerned with basic reactions involved in the autoxidation of the oil. When soybean oil absorbs oxygen, it forms hydroperoxides most of which are fairly stable but reactive materials. These hydroperoxides are formed in the normal processing of edible grade of soybean oil and are destroyed during deodorization. Unfortunately, the oil is now less stable than it was originally (6). Apparently, the hydroperoxides decompose on heating to give new products which join together to give hydroxylated dimers. The latter are more easily oxidized than the original oils. Thus, it is important to keep oxidation of the oil in processing prior to deodorization at a minimum. Vacuum bleaching, and use of nitrogen in the processing and

packaging of the oil would reduce the formation of these hydroperoxides and their decomposition products.

Industrial Products

Although a considerable part of our research program is devoted to studies on improving soybean oil for edible use, another part is concerned with the development of new and extended nonfood uses for soybean oil. This effort is concentrated on the oil component because the demand for soybean oil meal is equal to or perhaps even greater than its availability. This situation is not true with the oil. Increased use of soybean oil for edible purposes will come only as the population increases or supplies of other fats are decreased or become relatively higher priced. This condition might be altered by improving the stability of soybean oil, but such an improvement would be at the expense of other food fats and would not alter the overall fat consumption. The per capita use of edible fats is now at record or near record levels. Health authorities are concerned about our high per capita fat consumption. Thus, research on new nonfood outlets for soybean oil appears to be one sound approach to using increasing amounts of soybeans which the American farmers are able to produce.

Vinyl Ethers

Two years ago (7) a report was given on work with a new family of derivatives of soybean oil, namely, polyvinyl ether of soybean fatty alcohols. These products had unusual properties which made them potential raw materials for protective coatings. Through a team effort, over 200 copolymers of fatty vinyl ethers and other vinyl monomers were prepared and evaluated. In addition, a considerable amount of information was obtained on a process for preparation of the fatty vinyl ethers and their polymerization.

More recently, two new copolymers were found which merit considerably more development and evaluation. These copolymers are being tested as protective coatings for metals through cooperative work with two industrial companies and by contract with Battelle Memorial Institute. These coatings have excellent adhesion to metals and cure rapidly at elevated temperature to insoluble, hard but tough films, with little discoloration. Most of the other vinyl ether copolymers studied earlier were difficult to cure sufficiently to give superior physical properties in the films without destroying the alkali and chemical resistance. Comparative properties shown in table I indicate that these new copolymers are much harder than the vinyl ether copolymers studied previously and also are much more resistant to the action of alkali. Work will be continued on these vinyl ethers during the coming year with emphasis on the new copolymers.

TABLE I. PROPERTIES OF NEW VINYL ETHER COPOLYMER FILMS

Copolymers	Rocker hardness [3]	Resistance to 5% alkali
DCCS [1]	30	72 hours (unchanged)
DCCL [1]	30	240 hours "
CPCS [1]	20	72 hours "
CPCL [1]	24	144 hours "
Control [2]	10	7 hours (dissolved)

[1] Code identification of new vinyl ether copolymer. [2]Copolymer, soybean vinyl ether copolymerized with isobutyl vinyl ether in 1-3 mol. ratio. [3] Expressed as precentage hardness of glass.

Aldehyde Oils

During the past several years, ozone has become increasingly more available through improved technology for its production. One commercial concern is using it to make dibasic acids from fats for use in lubricants, plasticizers, and polyesters. Our efforts have been directed to the action of ozone on soybean oil to make new aldehydic acid derivatives as well as a new oil derivative which has been designated "aldehyde oil." Yields of these products from soybean oil have ranged from 70% to 90% which is excellent for reactions of this type. A key part of the process has been the discovery of methods to produce aldehyde oil and its derivatives without production of large amounts of acidic byproducts. Thus, partial hydrogenation of the soybean oil, ozonization, with reactive solvents to give hydroperoxides followed by reduction to give aldehydes, has yielded products of considerable research interest (9).

Future work will involve process studies to obtain the maximum yields and highest possible product quality. These new chemical products from soybean oil have a wide variety of potential uses. These include resins for protective coatings and impregnants for glass and other fibers, polymeric products for fiber manufacture, and intermediates for lubricants to name a few. This work has not progressed sufficiently that recommendations can be made for any specific commercial application.

Soybean Oil Meal

Our investigations on soybean oil meal are currently aimed at gaining new fundamental information, with especial attention toward the minor proteins of the meal which are water soluble. This work (10) has shown that the meal contains 13 water-soluble proteins. In this study, the mixture of proteins was absorbed on a chemically modified cellulose in a packed column followed by elution with sodium chloride solutions of constantly increasing concentration. The cumulative effluent volume was plotted against optical density of each fraction. Peaks in this curve indicate presence of individual proteins. Fractions containing the individual proteins revealed the presence of two trypsin inhibitors, one of which was isolated in a pure state. Studies also were made on the distribution of biologically active proteins, and some acid phosphatase, B-amylase, and hemagglutinating activities were observed. Work is being continued on the effect of heat on these proteins, on their isolation in large amounts, and on the relation of their properties to meal quality.

Literature Cited

1—Smith, A. K., Soybean Digest, pp. 14-17, October 1958.

2—Smith, A. K., "Research on U. S. Soybeans for Japan." Presented at 39th annual convention, American Soybean Association, St. Louis, Mo., Aug. 12, 1959.

3—Watanabe, T., "Japanese Scientists Look at U. S. Soybeans," ibid.

4—Dutton, H. J., Lancaster, K. R., Evans, C. D., Cowan, J. C., J. Am. Oil Chemists' Soc., 28, 115-118 (1951).

5—Jones, E. P., Mason, L. H., Dutton, H. J., Northern Regional Research Laboratory, and Nystrom, R. F., Radiocarbon Laboratory, University of Illinois, "Labelling Fatty Acids by Exposure to Tritium Gas. II. Methyl Oleate and Linoleate." Presented before Division of Organic Chemistry, 135th national meeting of American Chemical Society, Boston, Mass., Apr. 5-10, 1959.

6—Evans, C. D., Frankel, E. N., Cooney, P. M., Moser, H. A., "Effect of Autoxidation Prior to Deodorization on Oxidative Stability of Soybean Oil." Presented before American Oil Chemists' Society, Chicago, Ill., Oct. 20-22, 1958.

7—Cowan, J. C., Soybean Digest, pp. 64-66, September 1957.

8—Teeter, H. M., Gast, L. E., Cowan, J. C., Paint Industry, 74, 13-14, 16-17 (1959).

9—Pryde, E. H., Anders, D. E., Teeter, H. M., and Cowan, J. C., "The Ozonization of Methyl Oleate." Presented in part before the Division of Organic Chemistry at the 136th meeting of American Chemical Society, Atlantic, N. J., Sept. 18, 1959.

10—Rackis, J. J., Sasame, H. A., Anderson, R. L., Smith, A. K., "Chromatography of Soybean Proteins. I. Fractionation of Whey Proteins on Diethylaminoethyl-Cellulose." Presented before the Division of Biological Chemistry at the 135th meeting of American Chemical Society, Boston, Mass., Apr. 5-10, 1959.

Rooting depths of soybeans in claypan soils are being studied by University of Illinois specialists. In highly weathered soils low fertility has restricted root penetration more than the claypan itself has.

Our Protein Reservoir

By FRED H. HAFNER

Director of Protein Operations,
Oilseeds Division, General Mills, Inc.,
Minneapolis, Minn.

From a paper before the Inter-American Food Congress at Miami, Fla.

FEW COUNTRIES of the world know about the amazing quantity of low-cost, edible soy protein that can be produced in the United States in existing equipment. During World War II, production of edible soy products soared and hundreds of millions of pounds of soy flour and soy grits were used as food to supply much needed protein.

In 1947, when food rationing ended and supplies of animal protein products were once again available, the usage of soy products for food purposes declined markedly and much of the production equipment was idled. However, the facilities to produce edible soy products are still in existence. They are being utilized at somewhat less than capacity to supply an ever increasing demand from American food manufacturers for soy protein to fortify a variety of high protein food products such as:

Specialty breads, breakfast cereals, cookies and snack items, soups and baby foods, prepared mixes and frankfurters.

The American public is becoming increasingly protein conscious due largely to the adverse publicity given saturated fats, and the inclination to replace fat with protein rather than carbohydrate. Of all the fairly complete proteins available for food fortification, edible soy protein provides more protein at less cost than any other food material available.

Last year, U. S. farms yielded 575 million bushels of soybeans equivalent to 17.25 million tons. By Sept. 30 of this year, soybean processors will have converted 400 million of these 575 million bushels of soybeans into 2.2 million tons of soybean oil and 9.6 million tons of soybean oil meal.

The oil will be used largely in production of domestic margarine, shortening, salad oils and other food products. Some will go into production of industrial finishes. The remainder will be exported primarily under P. L. 480 agreements with so-called dollar poor or soft currency countries.

The meal, practically all of solvent extraction type, will be used as the primary protein ingredient of broiler feeds, turkey feeds, laying mashes, pig feeds, cattle feeds and dog foods. There are no statistics available as to what proportion of meal production is specially processed for human consumption but the statistics undoubtedly would be startling if available.

If all production facilities for making edible soy products were functioning, it is estimated that U. S. mills could produce 5,000 tons of edible soy protein per day, enough to supply *the total protein requirement* of 40 million people per day. No country in the world should permit protein starvation to occur when America's protein reservoir is so full and the cost is so low—less than 5¢ per pound f.o.b. production point. For those countries desiring to do something about protein deficiency diseases and protein starvation, here is a high quality protein, abundantly available at unbelievably low cost.

We in America who produce edible soy proteins would be delighted to work cooperatively with any of our Latin American friends to determine how our proteins can be adopted to their particular dietary conditions. This would serve to provide an immediate stopgap to the dietary deficiency of protein in these countries until protein products of suitable amino acid content can be manufactured within each of these countries from indigenous materials.

Soy protein contains over 50% of protein of high quality (protein efficiency ratio equal to that of milk casein), less than 2% of fat and over 3% of lysine. This product, completely cooked, is ready to eat and can be eaten dry "as is"; as a gruel either hot or cold; or as an ingredient of most any type of food product. Being high in both protein and lysine it's an excellent supplement to any of the cereal grains or products derived from them.

With low cost edible soy protein abundantly available, those who have delayed taking action on a protein fortification program for their country may now find it possible to move their time tables for action ahead months—yes, even years.

This is a personal letter to you from Geo. M. Strayer.

Read it carefully, then answer—

Your future is involved!

★

Please write your answers on the card and mail TODAY.

Thank you.

FIRST CLASS
PERMIT NO. 1
Sec. 34.9, P L & R
Hudson, Iowa

...uction and Utilization of the Soybean

DIRECTORS . . .
JOHN W. EVANS, Montevideo, Minn.
HARRY GATTON, JR., Rumsey, Ky.
JAKE HARTZ, JR., Stuttgart, Ark.
GLEN MYERS, Memphis, Mo.
HOWARD ROACH, Plainfield, Iowa
JOHN SAWYER, London, Ohio
WALTER M. SCOTT, JR., Tallulah, La.
W. M. WALLACE, Woodslee, Ontario
ERSEL WALLEY, Fort Wayne, Ind.
DAVID G. WING, Mechanicsburg, Ohio

BUSINESS REPLY CARD
NO POSTAGE STAMP NECESSARY IF MAILED IN UNITED STATES

5c - POSTAGE WILL BE PAID BY —

Geo. M. Strayer
American Soybean Assn.
Hudson, Iowa

matter of vital importance pertains to your annual Association conventions and the provisions for election of directors of the American Soybean Association.

(1) Prewar we were the world's largest net importers of fats and oils. Today we are the world's net exporters. Soybean production has grown from 75 million bushels to over 500 million bushels. Today, through the efforts of your Association we export 40% of the soybean oil, of which 20% goes as whole soybeans. What would be the price on soybeans today without these export markets? What would you grow on the land now devoted to soybeans? Where would you market it?

(2) There are no surpluses of soybeans. By working closely with USDA officials prices have been held at acceptable levels, the crop has been moved into channels of consumption, acreage has increased steadily, new markets have been developed.

(3) Prospects for increasing markets through a period of years are bright. Through market development projects conducted by ASA and our sister organization, The Soybean Council, new markets are being surveyed, analyzed and developed as rapidly as possible.

(4) There are proposals to solve the problems of all agriculture by a massive shift of land from surplus crops to soybeans. What would happen next year if we increase soybean acreage by 40 or 50%? Who will prevent such shifts except the leadership of ASA?

A vital part of your Association's program has been the annual convention held in August of each year. Problems of the industry are discussed, decisions made. Business is transacted, and directors and officers elected.

Here's the problem: Less than 10% of the membership attends these conventions, makes the decisions and carries on the business. What is the reason for non-attendance? Would you attend local meetings when you do not attend the national convention? How can the Association be more vital to you, give you a greater part in the decisions? Are nationwide conventions a remnant of the past? What takes their place?

WE WANT YOUR OPINIONS. Please fill out the postage-free card facing this page, return it to us promptly. A special committee will study the replies, make recommendations to the Board of Directors pertaining to your desires on conventions or meetings. This is an attempt to make your association more effective for you, and merits serious thought on your part. Drop the card in the mail, help us to help you. Your cooperation is appreciated--sorely needed.

Very truly yours,

Geo. M. Strayer

Geo. M. Strayer, Executive Vice-President and Secretary-Treasurer
AMERICAN SOYBEAN ASSOCIATION

GMS:fsg

Our Protein

By FRED H. HAFNER

Director of Protein Operations,
Oilseeds Division, General Mills, Inc.,
Minneapolis, Minn.

From a paper before the Inter-American Food Congress at Miami, Fla.

FEW COUNTRIES of the world know about the amazing quantity of low-cost, edible soy protein that can be produced in the United States in existing equipment. During World War II, production of edible soy products soared and hundreds of millions of pounds of soy flour and soy grits were used as food to supply much needed protein.

In 1947, when food rationing ended and supplies of animal protein products were once again available, the usage of soy products for food purposes declined markedly and much of the production equipment was idled. However, the facilities to produce edible soy products are still in existence. They are being utilized at somewhat less than capacity to supply an ever increasing demand from American food manufacturers for soy protein to fortify a variety of high protein food products such as:

Specialty breads, breakfast cereals, cookies and snack items, soups and baby foods, prepared mixes and frankfurters.

The American public is becoming increasingly protein conscious due largely to the adverse publicity given saturated fats, and the inclination to replace fat with protein rather than carbohydrate. Of all the fairly complete proteins available for food fortification, edible soy protein provides more protein at less cost than any other food material available.

Last year, U. S. farms yielded 575 million bushels of soybeans equivalent to 17.25 million tons. By Sept. 30 of this year, soybean processors will have converted 400 million of these 575 million bushels of soybeans into 2.2 million tons of soybean oil and 9.6 million tons of soybean oil meal.

The oil will be used largely in production of domestic margarine, shortening, salad oils and other food products. Some will go into production of industrial finishes. The remainder will be exported primarily under P. L. 480 agreements with so-called dollar poor or soft currency countries.

mills could produce 5,000 tons of edible soy protein per day, enough to supply *the total protein requirement* of 40 million people per day. No country in the world should permit protein starvation to occur when America's protein reservoir is so full and the cost is so low—less than 5¢ per pound f.o.b. production point. For those countries desiring to do something about protein deficiency diseases and protein starvation, here is a high quality protein, abundantly available at unbelievably low cost.

We in America who produce edible soy proteins would be delighted to work cooperatively with any of our Latin American friends to determine how our proteins can be adopted to their particular dietary conditions. This would serve to provide an immediate stopgap to the dietary deficiency of protein in these countries until protein products of suitable amino acid content can be manufactured within each of these countries from indigenous materials.

Soy protein contains over 50% of protein of high quality (protein efficiency ratio equal to that of milk casein), less than 2% of fat and over 3% of lysine. This product, completely cooked, is ready to eat and can be eaten dry "as is"; as a gruel either hot or cold; or as an ingredient of most any type of food product. Being high in both protein and lysine it's an excellent supplement to any of the cereal grains or products derived from them.

With low cost edible soy protein abundantly available, those who have delayed taking action on a protein fortification program for their country may now find it possible to move their time tables for action ahead months—yes, even years.

PLEASE ANSWER THE FOLLOWING AND MAIL TODAY!

State in which you reside _____

Have you ever attended an ASA Convention? ( ) Yes ( ) No

What years? _____

Would you attend ASA Convention in a smaller city? ( ) Yes ( ) No

Are you in favor of Regional and/or State Meetings? ( ) Yes ( ) No

(A) Would you attend such a meet? ( ) Yes ( ) No

Do you favor Industrywide joint meetings (Grower-Processor)? ( ) Yes ( ) No

What type information would be valuable to you at National ASA Convention?

_____

What type information would be valuable to you at Regional and/or State meetings? _____

If you did not attend the 1959 ASA Convention, why?

( ) Cost: ( ) Distance: Other_____

Other suggestions _____

Geo. M. Strayer.

Read it carefully, then answer—

Your future is involved!

★

Please write your answers on the card and mail TODAY.

Thank you.

An Organization of Those Interested in the Production and Utilization of the Soybean

C. G. SIMCOX, President
Assumption, Ill.
CHARLES V. SIMPSON, Vice President
Waterville, Minn.
GEO. M. STRAYER, Executive Vice
President and Secretary-Treasurer
DIRECTORS . . .
O. H. ACOM, Wardell, Mo.
HUBERT BAKER, Dalton City, Ill.
CHESTER B. BIDDLE, Remington, Ind.
JOHN BUTTERFIELD, Pana, Ill.

EXECUTIVE OFFICE
HUDSON, IOWA

October 10, 1959

DIRECTORS . . .
JOHN W. EVANS, Montevideo, Minn.
HARRY GATTON, JR., Rumsey, Ky.
JAKE HARTZ, JR., Stuttgart, Ark.
GLEN MYERS, Memphis, Mo.
HOWARD ROACH, Plainfield, Iowa
JOHN SAWYER, London, Ohio
WALTER M. SCOTT, JR., Tallulah, La.
W. M. WALLACE, Woodslee, Ontario
ERSEL WALLEY, Fort Wayne, Ind.
DAVID G. WING, Mechanicsburg, Ohio

DEAR ASA MEMBER

Your Board of Directors has asked me to consult you on a matter of vital importance to you and every soybean producer in this country. This pertains to your annual Association conventions and the provisions for election of directors of the American Soybean Association.

(1) Prewar we were the world's largest net importers of fats and oils. Today we are the world's net exporters. Soybean production has grown from 75 million bushels to over 500 million bushels. Today, through the efforts of your Association we export 40% of the soybean oil, of which 20% goes as whole soybeans. What would be the price on soybeans today without these export markets? What would you grow on the land now devoted to soybeans? Where would you market it?

(2) There are no surpluses of soybeans. By working closely with USDA officials prices have been held at acceptable levels, the crop has been moved into channels of consumption, acreage has increased steadily, new markets have been developed.

(3) Prospects for increasing markets through a period of years are bright. Through market development projects conducted by ASA and our sister organization, The Soybean Council, new markets are being surveyed, analyzed and developed as rapidly as possible.

(4) There are proposals to solve the problems of all agriculture by a massive shift of land from surplus crops to soybeans. What would happen next year if we increase soybean acreage by 40 or 50%? Who will prevent such shifts except the leadership of ASA?

A vital part of your Association's program has been the annual convention held in August of each year. Problems of the industry are discussed, decisions made. Business is transacted, and directors and officers elected.

Here's the problem: Less than 10% of the membership attends these conventions, makes the decisions and carries on the business. What is the reason for non-attendance? Would you attend local meetings when you do not attend the national convention? How can the Association be more vital to you, give you a greater part in the decisions? Are nationwide conventions a remnant of the past? What takes their place?

WE WANT YOUR OPINIONS. Please fill out the postage-free card facing this page, return it to us promptly. A special committee will study the replies, make recommendations to the Board of Directors pertaining to your desires on conventions or meetings. This is an attempt to make your association more effective for you, and merits serious thought on your part. Drop the card in the mail, help us to help you. Your cooperation is appreciated--sorely needed.

Very truly yours,

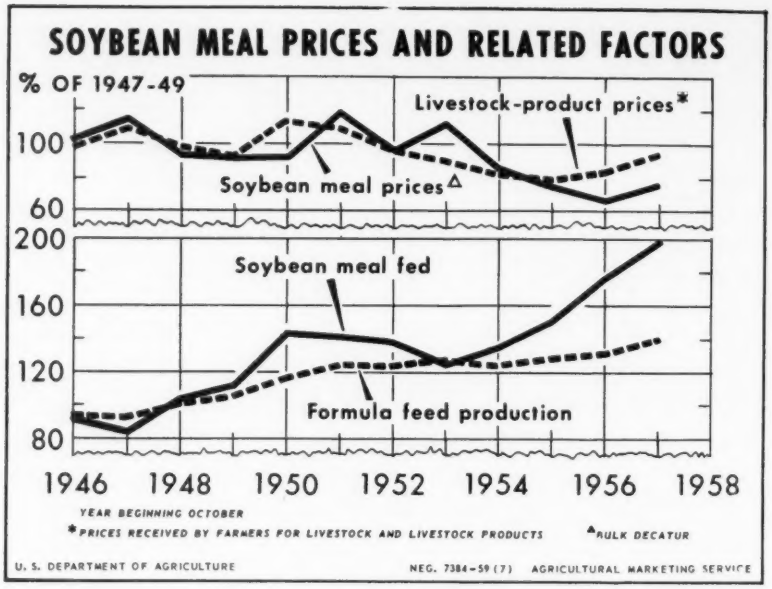
Geo. M. Strayer

Geo. M. Strayer, Executive Vice-
President and Secretary-Treasurer
AMERICAN SOYBEAN ASSOCIATION

GMS:fsg

Factors Influencing Prices of Soybean Meal

From Agricultural Marketing Service



THE RAPID growth in the production and use of soybean meal in livestock and poultry rations has been an important feature in the feed situation in postwar years, notes Agriculture Marketing Service, U. S. Department of Agriculture. During the 1958-59 feeding year 9 million tons will be fed, or about 55% of the high-protein feeds consumed by livestock and poultry. Based on wholesale prices at Decatur, the value of this tonnage would total about $500 million, second only to corn among the many ingredients purchased for livestock and poultry feeding.

Because of its growing importance, changes in prices of soybean meal and the forces influencing their movement have been of increasing interest to feeders, formula feed manufacturers and others associated with the feed-livestock economy.

Studies have been made of the relationship between prices of soybean meal, and a number of economic forces in the feed-livestock economy that have influenced them during the postwar years. The results of these studies serve as a basis for estimating soybean meal prices based on these factors. The study was limited to the postwar years since soybean meal was relatively unimportant prior to 1941, and during the war price controls and other restrictions were in effect.

Three of the many factors considered appear to have been most important in influencing soybean meal prices:

1—Total supply of soybean meal.

2—Prices received by farmers for livestock and livestock products.

3—Production of commercial formula feeds.

In combination, these three factors explained 87% of the variation in soybean meal prices. The general trends in these factors as related to soybean meal prices are shown for the period from 1946 to 1957 in the chart. This chart shows soybean meal fed rather than supply of soybean meal. However, nearly all of the soybean meal produced is fed each year. Exports, imports and changes in stocks of soybean meal are of minor importance in most years.

Prices of soybean meal were more closely associated with the supplies of soybean meal than with the total supply of all protein feeds. Including supplies of all other protein feeds in the equation gave some improvement in explaining soybean meal prices, but these other protein feeds did not appear to be of major importance in influencing soybean meal prices. This would indicate that the degree of substitution between soybean meal and other feeds is somewhat limited.

Prices farmers receive for livestock and livestock products are one of the major factors influencing prices of soybean meal. When farmers are receiving high returns for their livestock and livestock products, they can pay more for purchased feeds and depend less on home produced grains and other feeds. While favorable livestock-feed price ratios also would be expected to encourage heavier feeding of purchased feeds, results of the study did not indicate that they influenced soybean meal prices as much as the actual level of livestock prices.

The production of prepared livestock and poultry feeds appears to have an important bearing on the demand for soybean meal and the level of prices. This is due to the fact that over 85% of the soybean meal produced goes into commercially prepared feeds.

While livestock and poultry numbers influence the demand for feed and the general level of feed prices, these studies do not indicate that changes in numbers had an important bearing on soybean meal prices during the postwar period. Changes in the number of high-protein feed-consuming animal units were not closely associated with changes in soybean meal prices. This may be due at least partly to the fact that numbers of protein-consuming animal units did not change greatly during these years.

In 9 of the 12 years studied, the three factors discussed gave an estimated price that differed by no more than $6 per ton from the actual price. During 4 of the years, the price derived by using these factors was no more than $4 above or below the actual price. Three other analyses also were made, the results of which are shown in this table. The data used in these equations and in the chart are given in table 1.

Several underlying factors affecting soybean meal prices were not considered in this study. They include government support prices for soybeans and feed grain prices and supplies. Support prices for soy-

TABLE 1. SOYBEAN MEAL PRICES AND RELATED FACTORS, 1946-57

Year beginning October	Price of soybean meal [1] Price per ton	Percentage of 1947-49	Supply of soybean meal [2]	Supply of all other high-protein feeds [2]	Soybean meal fed Quantity	Percentage of 1947-49	All other high-protein feeds fed	Index of prices livestock-products [3] 1910-14=100	1947-49=100	Formula feed production [4] Quantity	Percentage of 1947-49	High-protein animal units [5]
	Dol.	Pct.	1,000 tons	1,000 tons	1,000 tons	Pct.	1,000 tons	Pct.	Pct.	Mil. tons	Pct.	Mil. units
1946	72.30	103	4,086	6,476	3,745	93	6,365	283	98	25.9	94	97.4
1947	80.90	115	3,833	7,015	3,383	84	6,856	315	109	25.6	93	92.8
1948	66.10	94	4,334	7,612	4,158	103	7,243	284	98	27.8	101	96.3
1949	64.30	91	4,625	7,999	4,517	112	7,532	270	93	29.0	105	99.0
1950	64.45	92	5,965	7,763	5,718	142	7,554	328	113	31.9	116	101.3
1951	83.35	118	5,763	7,906	5,640	140	7,721	317	109	34.0	124	102.0
1952	67.55	96	5,644	7,828	5,510	137	7,558	274	94	33.9	123	100.2
1953	78.65	112	5,123	8,682	4,965	124	8,320	255	88	34.7	126	100.2
1954	60.70	86	5,766	8,140	5,428	135	7,680	236	81	34.0	124	101.5
1955	52.55	75	6,583	8,531	6,042	150	8,002	226	78	35.2	128	104.2
1956	47.45	67	7,621	7,942	7,093	176	7,536	237	82	35.9	131	103.1
1957	53.40	76	8,340	7,402	7,970	198	7,219	268	92	38.2	139	103.0

[1] Wholesale price, 44% protein, bulk, Decatur. [2] Production, plus Oct. 1 stocks and imports (where these are reported). [3] Prices received by farmers for livestock and livestock products. [4] Derived from calendar year data published by the American Feed Manufacturers Association. Since there is little seasonality in formula feed production by quarters, the estimates for the October-September year are derived by adding one-fourth of production in the current calendar year to three-fourths of the production in the following calendar year. [5] Conversion factors to obtain high-protein feed-consuming animal units are given in Grain and Feed Statistics, March 1959, page 42.

beans influence soybean prices and in some years the volume crushed and exported. This would in turn influence production of oil and meal and would have a joint impact on prices of these products. Feed grain prices and supplies would have some effect on prices of all feeds. However, their effect would be greater for feeds of lower protein content.

Another area of considerable interest to the feed-livestock industry is the relationship of soybean meal prices to prices of other feeds. Such relationships are useful in determining probable prices of various feeds when the price of soybean meal is estimated or known.

The average changes in prices of a number of feeds relative to changes in soybean meal prices were computed, both on the basis of annual average prices and on changes in prices from one year to the next. October-September average prices per ton of soybean meal, 44% protein, Decatur, and a number of other feeds at their principal market for the 12 years beginning October 1946 were used.

Prices of most of the feeds studied based on the comparative levels of the annual average prices changed about 50¢ to 75¢ per ton for each change of $1 per ton in the soybean meal price, as shown in the first section of table 2.

Meat meal and fish meal were notable exceptions. Meat meal prices changed 99¢ per ton for every $1 change per ton in soybean meal. The percentage change, however, was much less since meat meal prices averaged much higher than soybean meal. Changes in fish meal prices showed no significant relation to changes in soybean meal prices.

Measures of the closeness of the association between soybean meal prices and prices of other feeds also are shown in table 2. As might be expected, variations in prices of feeds that are most nearly comparable to soybean meal in composition and feeding value are most closely associated with variations in soybean meal prices. For example, cottonseed meal and linseed meal prices are more closely associated with soybean meal prices than fish or meat meal which are higher in protein content and are not considered as close substitutes for soybean meal. Approximately three-fourths of the variations in both cottonseed meal and linseed meal prices was associated with variations in soybean meal prices.

A much smaller percentage of the variation in prices of meat meal and distillers' dried grains were associated with variations in soybean meal prices than was the case with the other feeds studied. Fish meal, which had little price relationship to soybean meal, has a feeding value 50% greater than that of soybean meal as well as other unique properties that make it a recommended ingredient for all broiler, starter and breeder mashes. Relationships computed on the basis of year-to-year changes in prices are shown in the second section of table 2.

Illinois Central Railroad, Chicago 5, Ill., has issued county production maps for Iowa and Illinois showing soybean production for 1957 and 1958. Paul R. Farlow is general agricultural and forestry agent.

TABLE 2—AVERAGE RELATIONSHIP BETWEEN PRICES PER TON OF SOYBEAN MEAL AND OTHER SPECIFIED FEEDS, BULK, YEAR BEGINNING OCTOBER, 1946-57[1]

	Based on: Annual price a value[2]	b value Change per change of $1 per ton in price of soybean meal[2]	Percentage of variation associated with variation in price of soybean meal	Change from preceding year a value[2]	b value Change per change of $1 per ton in price of soybean meal[2]	Percentage of variation associated with variation in price of soybean meal
	Dol.	Dol.	Pct.	Dol.	Dol.	Pct.
Cottonseed meal, 41% protein, Memphis	15.08	.75	76	— .31	.62	55
Linseed meal, 36% protein, Minneapolis	19.27	.67	74	—1.82	.37	48
Fish meal, 60% protein, Buffalo	140.83	—.09	1	.88	—.13	1
Meat meal, 50% protein, Chicago	29.41	.99	47	.62	.73	41
Gluten feed, 21% protein, Chicago	6.75	.64	73	— .55	.51	45
Distillers' dried grains, 28% protein, Cincinnati	33.21	.39	52	.01	.24	16
Brewers' dried grains, 24% protein, Milwaukee	15.86	.48	67	— .28	.50	53
Wheat middlings, Minneapolis	2.98	.64	70	—1.03	.45	48
Hominy feed, Chicago	8.14	.66	60	— .54	.62	36
Corn, No. 3 yellow, Chicago	10.90	.69	59	—1.12	.54	31

[1] Based on simple correlations between the prices of the various feeds at the specified markets and soybean meal, 44% protein, Decatur. [2] These are the a and b values in the regression equation $x_1 = a + bx_2$ where x_1 is the price of one of the feeds shown and x_2 is the price of soybean meal. The equation estimates the price of a specified feed when the soybean meal price is given, based on the average relationship between the two feeds during 1946-57. Example: the estimated price of cottonseed meal in 1957-58 (based on the annual price data) = 15.08 + .75 (53.40) = $55.13. The actual price of cottonseed meal in 1957-58 was $56.50. Example based on change from preceding year: the estimated change in the price of cottonseed meal for 1957-58 = —.31 + .62 (53.40 —47.45) =$3.38 per ton. The actual change in the price of cottonseed meal was $4.80 per ton.

SOME ROWS of the Merit variety in test plots at Ottawa.

Merit: New Canadian Soybean Variety

A NEW soybean variety, Merit, has been released by the Ottawa, Canada, Central Experimental Farm.

Seed is being increased by several Ontario growers and a quantity should be available for planting in 1960, according to F. Dimmock, corn and soybean specialist at the station.

Merit is the progeny of a cross between the varieties Blackhawk and Capital. The original cross was made by the U. S. Regional Soybean Laboratory at Urbana, Ill.

It should be well adapted to zones 3 and 4 in Ontario, also to areas in southwestern Quebec. It is 2 to 3 days earlier in maturity than Comet, and 5 to 6 days earlier than Capital.

Under suitable conditions in the Ottawa area it should average between 25 to 35 bushels per acre, according to Dr. Dimmock. Merit is high in oil, and has shown resistance to Phytophthora root rot and to seedcoat mottling.

The plant has an erect, bushy habit of growth with stems and leaves of medium size, and good stalk strength. Average height is 30 to 36 inches.

Pubescence is gray and the flower color white. Seed size is small to medium. Seedcoat color is yellow, the hilum light brown and the cotyledon yellow.

Aeroglide®

The World's Finest Grain Drier

- DRYING CAPACITIES — up to 2,000 Bushels Per Hour in Self-Contained Units
- DRIES—Corn, Wheat, Oats, Soybeans, Rye, Barley, Milo, Rice, Buckwheat, etc.
- FIRED BY—Fuel Oil, Natural or LP Gas

Aeroglide Corporation

810 GLENWOOD AVE. — RALEIGH, N. C.
TELEPHONE 2-6422

Clark Leads All Other Varieties in Kansas

CLARK WAS by far the leading soybean variety planted in Kansas this year, according to the Kansas Crop and Livestock Reporting Service. This variety was planted on 69.3% of the state's total soybean acreage in 1959.

The variety S-100, comprising 12.2% of the soybean acreage, ranked second while Wabash, planted on 7.8% of the acreage, was third. These three varieties made up 89.3% of the total soybean acreage.

Other varieties in order of their relative importance were Chief 2.7%; Dorman 1.7%; Perry .9%; and Lincoln .8%. The remaining 2.4% of the acreage was seeded with 13 miscellaneous varieties.

Clark proved to be the most popular variety in all crop reporting districts where sizable acreages of soybeans are grown, and was the leading variety in all important counties except Wilson and Montgomery. In east central Kansas it comprised 80% of the soybean acreage.

In southeast Kansas, Clark made up only 59% of the acreage, with a number of counties showing a high percentage of S-100. In this district, S-100 was planted on 26% of the acreage. Although Wabash ranked third, it was planted in many counties from the northern to southern borders of the state.

The 1959 survey showed a striking change since 1953 in the importance of soybean varieties in the state. This was the result of Kansas farmers' rapid shift to Clark, an outstanding variety approved by the Kansas Agricultural Experiment Station in 1955. In 1953, the date of the state's last soybean variety survey, Wabash was the leading variety and was planted on 27.3% of the acreage.

Memphis Offers Meal Futures Contract

THE MEMPHIS Board of Trade Clearing Association opened a Memphis basis soybean meal futures market for trading Sept. 1. Trading began with the October 1959 and subsequent options. The contract is designed to enable processors, oil mills, dealers and handlers of soybean meal to avail themselves of a facility for securing price insurance on southern-produced meal.

The contract calls for track deliveries in cars of 100,000 pounds each and will be permitted only in the last half of the delivery month.

Delivery by demand certificate may be made only by licensed processors and may be made during the current month up to and within 3 business days after the last trading day. Shipping instructions must, however, be furnished on demand certificate deliveries not later than the 27th day of the current month.

Anyone desiring a copy of the rules covering the Memphis basis contract may secure them by contacting a broker, Memphis Board of Trade Clearing Association clearing members, or the Memphis Board of Trade, P. O. Box 345, Memphis 1, Tenn.

Big Interest in Madras, India Exhibit

PROCESSING and marketing of food products was the central theme of the U. S. agriculture mission, which operated the food pavilion at the U. S. Small Industries Exhibition held in Madras, India, during September.

The tastefully rigged-up pavilion offered some answers to the vexing problem of enriching the diet without increasing costs, with particular emphasis on the mainly vegetarian diet of South India.

Among the displays was one on soybeans. Soy protein is the best balanced and cheapest protein known to man, said David R. Farlow, in charge of the display. He is assistant to Geo. M. Strayer, executive director of the Soybean Council of America, Inc., sponsor of the exhibit.

"This valuable food, which as yet is virtually unknown in India, seems a logical answer to diet deficiencies in vegetarian India," said Farlow.

He showed through displays that with the addition of 12½% of soy protein, the nutritional value of a pound of rice is increased two and one-half times at small cost.

Farlow reported terrific interest in his soybean story. "If desire and need were economic demand, we could sell in India all the oil and meal we could produce," he said.

Other products shown at the Fair included dairy products and wheat.

Participation in the World Agricultural Fair to be held in New Delhi, India, starting Dec. 11 and extending to Feb. 14, has been arranged by the Soybean Council as one of the three U. S. agricultural commodity groups to show their wares.

Personnel from the United States will be in attendance at New Delhi. The exhibit will be in conjunction with the trade fairs division of USDA's Foreign Agricultural Service.

Two other Soybean Council displays at recent fairs were at Cremona, Italy, and Salonika, Greece.

Use of soybean oil meal in livestock feed was featured in a SBC exhibit at Cremona starting Sept. 11. This was one of a series of exhibits being conducted at Italian agricultural fairs this year in connection with the Council's market development projects.

Two representatives of SBC were in Salonika, Greece, in charge of the exhibit first prepared for showing in Madrid, Spain, earlier this year.

Javier de Salas, the Council's director of Spanish operations, who designed the exhibit, and Jose Montefeuring of the Rome office, were in attendance.

Attendance at a human nutrition seminar in the Canary Islands in October being sponsored by the Spanish office of the Council seems destined to run far above expected figures. A total of as many as 150 people from the Islands, Spain, Italy, Germany and a number of African countries will be on hand. Emphasis will be on soy protein as a means of fortifying local foodstuffs.

W. B. Cox, Honeymead Products Co., Mankato, Minn., will represent the Council and present a paper on "Soybean Protein in Human Nutrition."

Soybean Council Elects Officers

HOWARD L. ROACH, Plainfield, Iowa, was reelected president of the Soybean Council of America, Inc., at the annual meeting of the board of directors in Chicago Sept. 15.

David G. Wing, Mechanicsburg, Ohio, was reelected vice president; R. G. Houghtlin, Chicago, secretary; and Geo M. Strayer, Hudson, Iowa, executive director.

Chester B. Biddle, Remington,

NARRATORS in action telling the soybean story at the Soybean Council exhibit at the U. S. Small Industries Fair at Madras, India. Cooks are incorporating soy grits and soy oil in Indian cooking.

GROUP of school girls who are guests of the Soybean Council pose for picture in front of the Council booth.

SOYBEAN COUNCIL OF AMERICA, INC.

Ind., was elected treasurer, succeeding C. G. Simcox, Assumption, Ill., who is now president of the American Soybean Association.

The Council's board of directors is made up of nine representatives selected by the American Soybean Association, nine selected by the National Soybean Processors Association, and one from the North American Export Grain Association and one from the cooperative grain handlers organizations. Committee members are drawn from all four groups.

Soy Flour in Bread in Austria and Israel

ISRAEL recently passed a law requiring the use of 5% soy flour in bread produced by commercial bakers in that country, as a means of fortifying the protein intake of her people.

Problems involved in such usage are being solved in conjunction with representatives of the Soybean Council.

Austria has recently passed a law making up to 5% soy flour or other protein sources permissible in bread baked for commercial distribution. This change in the law is due largely to the Council's efforts through local contacts in Austria.

Edward M. James, technical consultant to the Council on soybean oil, left in September for work in Israel with the oil refiners and foods manufacturers there assisting in solution of problems of usage of soybean oil in the Israel economy.

A request for Dr. James to go to Egypt for similar work has been received, and the details worked out.

President Roach To South America

COUNCIL PRESIDENT Howard L. Roach left Waterloo, Iowa, Sept. 21 for 2 months in South America. He will work with projects under way in Peru, Ecuador, Chile and Colombia. And he will spend approximately 2 weeks at the large fair at Lima, Peru, where soybean oil will be featured at the Council's exhibit.

President Roach will make calls in a number of other countries on the east and north coasts of South America before returning to this country.

SONJA SOYA and Georg Jaeger, head chef of the Hotel Graf Zeppelin, check on chicken fried in soybean oil.

Sonja Soya Joins The Soybean Council

ABOVE we introduce Sonja Soya, a new personality in the soybean world. You will be hearing from Sonja again, as she has been retained by the Soybean Council of America for demonstration and public relations work in various European countries.

One of Sonja Soya's first appearances will be at the human food seminar in the Canary Islands in October. She was in charge of food service at the U. S. exhibit at the Cologne, Germany, fair Sept. 26-Oct. 4 where soybeans and soybean products were displayed and toasted soybeans given away.

Later she will make appearances in Israel.

The cover photo shows Sonja Soya exchanging notes on foods with Ludwig Schnitzbauer, head chef of the Atlantic Hotel, Hamburg, Germany.

Cloy B. Knodt

Cargill Research Man To Spanish Seminar

DR. CLOY B. KNODT, director of the Cargill, Inc., research farm at Anoka, Minn., is leaving to participate in the coming feed seminar at Valladolid, Spain, Oct. 7-11.

The seminar is being sponsored by the Council in cooperation with the Spanish Minister of Agriculture and livestock and feed groups in Spain.

Spanish Director Javier de Salas will be in charge.

FAO Sends Altschul On Israel Mission

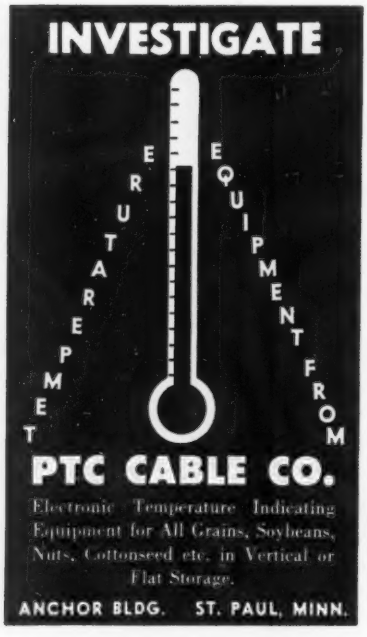
DR. AARON M. ALTSCHUL, U. S. Department of Agriculture scientist widely known for his research on seed proteins, will spend 60 days in Israel under the auspices of the Food and Agriculture Organization of the United Nations. While there he will guide Israeli scientists in their search for ways to improve that nation's diet through increased use of available vegetable proteins.

Chief research chemist of the USDA's Agricultural Research Service Southern Utilization Research and Development Division at New Orleans, La., Dr. Altschul has gained worldwide attention for his work on improving the nutritive value of cottonseed flour as a protein source.

Dr. Altschul, with his wife and youngest daughter, Judy, left New Orleans Sept. 20. During his 60-day stay in Israel, Dr. Altschul will be headquartered at Tel-Aviv.

Most of the world's people live in areas having little or no milk and meat available as sources of proteins. This is particularly bad for children in the 1-to-5-year age bracket, since they have the highest need for body-building protein.

Recently Dr. Altschul was in Guatemala where there is a ma-


INVESTIGATE
TEMPERATURE EQUIPMENT FROM
PTC CABLE CO.
Electronic Temperature Indicating Equipment for All Grains, Soybeans, Nuts, Cottonseed etc. in Vertical or Flat Storage.
ANCHOR BLDG. ST. PAUL, MINN.

jor deficiency of proteins available to youngsters. There corn flour has been the staple food, and although corn has some protein, it is not sufficient. Now a combination of corn flour and cottonseed flour developed at the Institute of Nutrition for Central America and Panama under the direction of Dr. N. S. Scrimshaw is being fed youngsters there and the protein value of a gruel made of these flours was found to be similar to milk.

Dr. Altschul points out that milk and meat will not become more plentiful in areas where they are already in short supply because of the exploding populations. As a result, he says, these people will have to depend more and more on vegetable proteins since each acre will produce three to five times more vegetable protein than animal protein.

And the use of vegetable proteins does not always have to be in the form of a gruel or soup. Soybean and peanut proteins have been isolated and converted into foods that look and taste like weiners, sausage, and hamburger. As the work progresses, more and more types of foods with varying tastes must be developed from vegetable proteins.

JAPANESE-AMERICAN SOYBEAN INSTITUTE

Urge Liberalization of Japan Imports

By SHIZUKA HAYASHI

Managing Director, Japanese American Soybean Institute, Nikkatsu International Bldg., No. 1-Chome Yurakucho Chiyoda-Ku, Tokyo, Japan

A MEETING with the manufacturers of miso, shoyu, tofu, natto and the prefectural government officers was held in Aomori City, the extreme northern city of Japan main island. This meeting was sponsored by the Japanese American Soybean Institute. It was attended also by the agricultural attache's office. The message by John D. Motz, acting agricultural attache, American Embassy, specially impressed the attendants. He stated in his message that the U. S. government has pointed out to the Japanese government that it is a discrimination against trade with the United States to place the import of soybeans from the United States under the allocation system while soybeans from other areas can be imported without restriction.

Various matters were discussed, including foreign material, the import formula of soybeans under the allocation system and the plan to increase the rate of import duty on soybeans. Strong requests were made by the Japanese manufacturers for better quality U. S. soybeans by eliminating foreign materials.

Mr. Komiya, managing director of Japan Shoyu (soy sauce) Association, in his talk emphasized the urgent necessity of revising the present import system for soybeans. His talk is summarized as follows:

"American soybeans can be purchased freely on a commercial basis. The Chicago grain exchange market is open to the whole world. Anyone can purchase any quantity desired at his desired price if he has funds to buy. Contrarily, Chinese soybeans are sold to the Japanese consumers on a political basis. The quantity and price of Chinese soybeans which will be offered to Japan are decided by the communist Chinese government solely on political considerations. The decision of the commu-

nist Chinese government whether to sell or not to sell is very often made on speculation.

"The sudden suspension of trade between China and Japan in May 1958 resulting in the calling off of contracts then actually entered was not a transaction but political bargaining. It is most embarrassing for enterprise in the free world if the supply of soybeans is controlled politically.

"The Japanese government restricting the import of soybeans is a poor policy. The currency allocation system is applied to import commodities for three reasons: first, because of insufficient foreign currency; second, when commodities to be imported are found not in domestic surplus; and third, when protection is needed for those producing such commodities.

"However the situation is now different. Foreign currency holding has become abundant so it needs no restriction on import. Soybeans are not a surplus commodity in Japan because actual needs by far exceed production and there is no alternative other than to depend on imports. Protection of domestic soybean growers should be reappraised in view of the fact that the farming population growing soybeans constitutes a small percentage and furthermore the soybean acreage is largely concentrated within Hokkaido. It is entirely illogical to protect a small percentage of growers in a limited area at the sacrifice of the whole consuming population.

"The present foreign currency allocation system should therefore be switched immediately to the automatic approval system, thus liberalizing soybean imports. It is quite incomprehensible to discriminate against American soybeans compared with Brazilian soybeans which are now imported freely under the automatic approval formula.

"The third problem which requires serious attention is the fact that certain agricultural organizations are pressing the government to raise the import duty on soybeans from 10% to 25%. This is aimed only to protect a small percentage of the Japanese population. Soybeans and soybean products are indispensable as daily foods in Japan. They are consumed every day by all the Japanese people. All related industries of soybeans should get together and fight for the interest of the consumers by stopping this movement to raise the tariff.

"The Japanese government should not only liberalize the import of soybeans but also should reduce the present import duty of 10% thus enabling the purchase of soybeans at any time from any country for any quantity and at the price desired."

Our movie film, "The Green Bud," with "The Feature Story" were shown. After the meeting was over we inspected one of the largest shoyu and miso factories and also a tofu and natto plant. It is very interesting to learn that U. S. soybeans are liked by the tofu makers because of the bigger yield of tofu compared with other soybeans. Foreign material is however objected to everywhere.

CROP REPORT

Yields at Least Average

SOYBEAN HARVEST was becoming very general in all soybean producing areas except for the East Coast and southern areas by late September.

Yield reports varied but in general indicated an average crop or better except for local drought areas.

There was some insect damage on the East Coast, and high temperatures in August and September may have affected podding adversely in some areas.

Early reports on quality of harvested beans were generally good. Excessive weed growth may cause local trouble.

Reports from Soybean Digest crop correspondents and others:

Arkansas. Jacob Hartz Seed Co., Stuttgart (9-22): Considerable grass showing in earlier beans. Dorman soybeans will begin to move this week. Ogden and Hood, Oct. 10. Rice area soybeans are fairly uniform with small amount of grass. Cotton areas have heavy infestation of grass and weeds. Frost will kill the grass and weeds before beans are ready. On first soybeans delivered non-irrigated yield ran about 15 bushels, moisture about 14%. Irrigated soybeans will be equal to or slightly less than last year. 50% of the crop will be held after the first of the year for sale.

Georgia. Weekly Weather and Crop Bulletin (9-22): Ample moisture supplies have improved the outlook for soybeans. Are in mostly good to fair condition.

Illinois. L. Parke Kerbaugh, Stanford (9-21): Most beans harvested to date have some green beans. Lowest yield heard of was 13 bushels. Some 30-bushel beans reported. Lots of grass, some weeds in early beans. Quality good, moisture average, some foreign material.

Iowa. C. R. Weber, agronomist, and J. M. Dunleavy, plant pathologist, Iowa State University, after a 900-mile survey in all quarters of Iowa Sept. 8 and 9: "Since our last survey, July 8 and 9, soybeans have improved in yield potential because of improved moisture and growing conditions in August. Few areas are seriously in need of moisture. Our yield estimate for July was above the normal 23.1 bu/a (1949-58). Now our best estimate is 26.5 or 27.0 bu/a. If we have 2 weeks without killing frost, most beans will mature—3 weeks will mature all. Volunteer corn is not as prevalent in soybeans as in 1958."

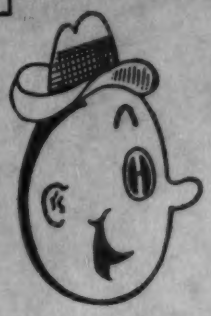
Kansas. B. E. Henline, Soy-Rich Products Inc., Wichita (9-21): Harvest in full swing. Beans are arriving with less foreign material than any prior year. Bean yield reported 20 to 40 bushels, excellent quality. 10.5% to 12.5% moisture; .5% to 2.5% foreign material. Ralph S. Moore estimate for Kansas 10 million bushels; B. E. Henline estimate 9.06 million bushels.

SOYBEANS FOR BEANS

	Yield per acre			Production		
	Average 1948-57	1958	Indicated 1959	Average 1947-57	1958	Indicated 1959
	— Bushels —			— 1,000 bushels —		
N. Y.	16.2	17.0	16.0	100	102	96
N. J.	18.9	25.0	25.0	555	1,125	1,025
Pa.	17.3	22.0	22.0	381	330	308
Ohio	22.5	26.0	26.5	24,800	37,466	37,710
Ind.	22.9	26.5	26.5	41,410	58,432	57,850
Ill.	24.2	28.0	26.5	96,964	140,364	126,590
Mich.	20.5	23.0	23.0	2,668	6,095	4,945
Wis.	14.8	14.5	17.0	830	1,740	1,496
Minn.	19.0	17.5	18.5	30,879	53,935	40,404
Iowa	22.8	25.5	26.5	44,343	78,668	62,884
Mo.	19.0	26.0	25.0	27,917	55,432	55,000
N. Dak.	13.6	13.5	15.0	953	3,672	3,345
S. Dak.	15.0	11.5	10.0	1,712	2,978	1,420
Nebr.	20.6	30.0	28.5	1,919	6,180	3,762
Kans.	11.8	22.0	21.0	4,094	9,262	8,610
Del.	16.8	22.5	22.0	1,529	3,622	3,674
Md.	18.0	22.0	21.0	2,136	4,246	4,200
Va.	17.8	22.5	21.0	3,274	6,052	5,817
N. C.	16.8	23.0	23.0	5,426	10,212	10,971
S. C.	12.0	15.5	15.5	1,782	5,611	6,060
Ga.	11.1	12.5	14.5	536	1,125	1,189
Fla.	[1] 19.3	25.0	24.0	[1] 424	1,150	1,104
Ky.	18.0	24.5	25.0	2,286	3,871	3,500
Tenn.	18.4	23.5	24.0	3,554	6,486	6,960
Ala.	19.3	22.5	23.0	1,646	2,970	3,289
Miss.	16.2	23.0	24.0	7,013	18,400	20,736
Ark.	18.0	24.5	24.0	15,163	49,637	53,112
La.	17.4	22.0	23.0	1,196	2,860	3,174
Okla.	11.8	22.5	22.0	455	1,012	1,188
Tex.	[1] 18.9	26.0	30.0	106	1,378	2,250
U. S.	21.0	24.2	24.2	326,020	574,413	532,669

[1] Short-time average. September 1959 report, crop reporting board, AMS, USDA.

SPECIAL INTRODUCTORY COUPON 62¢



Get the FACTS

Subscribe Now To

LATE NEWS

Tear Off Here COUPON

COUPON (over)

LATE NEWS, published 32 issues per year, brings you the very latest crop and market information. It may mean extra $$ for you.

Mail check or money order to American Soybean Assn., Hudson, Iowa, and receive 13 months LATE NEWS service for only $7.50 with this coupon.

62¢ SPECIAL INTRODUCTORY COUPON 62¢

1—Decline in the production of copra and marine oils since 1957 and the stagnation in butter output this year.

2—The good demand for food fats and oil as contrasted with industrial fats and oils.

This year's world net exports of edible vegetable oils are likely to reach about 2.76 million metric tons. Exports of copra and coconut oil will probably continue their decline, to .05 million metric tons compared with 1.10 million metric tons last year.

be difficult to harvest. Looks like about 25-bushel average. Not over 20% will be stored if price at harvest is $1.90 or above. More farmers than usual have contracted to deliver beans as harvested at agreed price. Generally around $1.95.

Missouri. E. W. Traschel, Helena: Due to a very wet May bean acreage has more than doubled around here. Five years ago you found hardly anybody who could talk beans. Now most everyone is raising them. Growing conditions in June were ideal but windstorms in July put many early fields down. Then came a dry spell in late July, August and September and above average temperatures. I only expect an average yield.

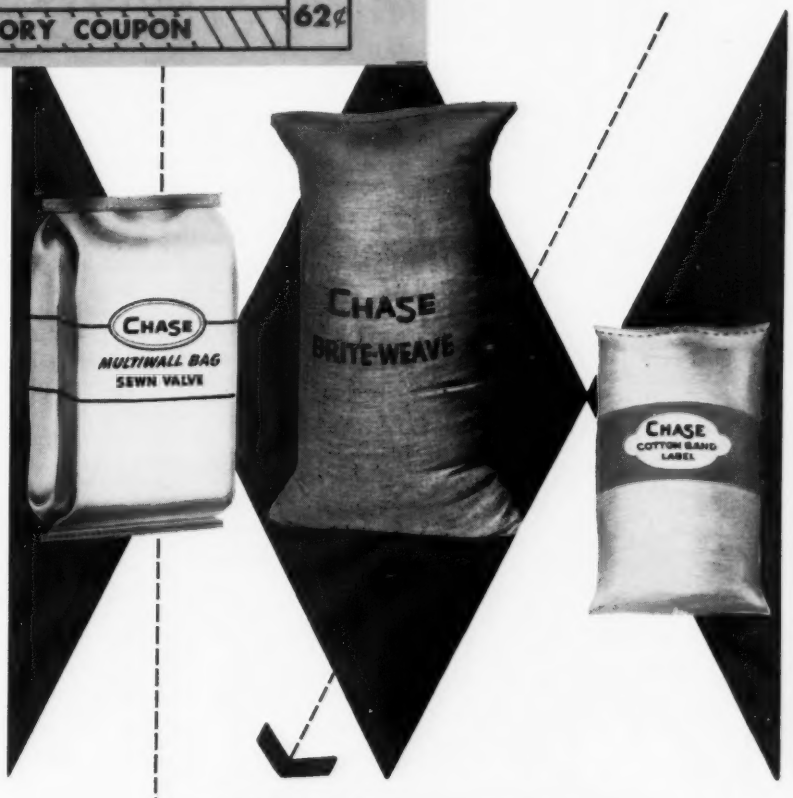
Harold Lumsden, Essex (9-22): Clarks 75% harvested, Dormans beginning to move. Clarks generally are not up to last year. We have a big crop.

R. Thompson, Lafayette Elevator Co., Lexington, Mo. (9-19): Soybeans harvested very dry. Quality good. Yield above average. Foreign material average.

Ohio. G. G. McIlroy, Irwin (9-19): Good frost on 17th stopped growth but I do not think much damage. Lots of weeds. Waiting for weeds to dry up may delay harvesting in some instances. Reports indicate record yields.

Oklahoma. Lloyd Cowgill, manager Miami Milling Co., Miami (9-20): Early harvested soybeans not very good. Yield 12 to 15 bushels. Good quality, low moisture. 50% will go into storage.

Ontario. R. H. Peck, River Canard (9-21): Frost on Sept. 17 killed top leaves. Harvest may possibly start by Oct. 5. Harvest should not be any particular trouble. Some weedy fields, but generally clean. Yield for immediate area should be above average.



DEPENDABILITY

IN BAGS FOR YOUR SOYBEAN MEAL

For safe shipment—low cost—in bags easy to fill, close, stack and store... always insist on *Chase* dependability. Make a single call, order any or all—any type, any size, any quantity.

CHASE MULTIWALL PAPER CHASE COTTON CHASE BURLAP

CHASE BAG COMPANY

General Sales Offices
355 Lexington Avenue, New York 17, N. Y.

32 Bag Plants and Sales Offices coast to coast—a Nationwide Staff of Bag Specialists.

Our 112th Year of Bag-Making Progress.

Yes —I want to save 62¢ on this Special 13-Month Introductory Offer to

LATE NEWS

Name .....

Address .....

Town..... State.....

☐ Enclosed find check or money order for $7.50.

☐ Please bill me. ☐ Please bill Firm.

—mail to—

American Soybean Assn., Hudson, Iowa

A Tax Deductible Business Expense

nist Chinese government whether
sell or not to sell is very often m
on speculation.

"The sudden suspension of tr
between China and Japan in M
1958 resulting in the calling off
contracts then actually entered
not a transaction but political b
gaining. It is most embarrassing
enterprise in the free world if
supply of soybeans is controlled
litically.

"The Japanese government
stricting the import of soybean
a poor policy. The currency allo
tion system is applied to im
commodities for three reasons: f
because of insufficient foreign
rency; second, when commoditie
be imported are found not in
mestic surplus; and third, when pro-
tection is needed for those produc-
ing such commodities.

"However the situation is now dif-
ferent. Foreign currency holding
has become abundant so it needs no
restriction on import. Soybeans are
not a surplus commodity in Japan
because actual needs by far exceed
production and there is no alterna-
tive other than to depend on imports.
Protection of domestic soybean
growers should be reappraised in
view of the fact that the farming
population growing soybeans con-
stitutes a small percentage and fur-
thermore the soybean acreage is
largely concentrated within Hok-
kaido. It is entirely illogical to pro-
tect a small percentage of growers
in a limited area at the sacrifice
of the whole consuming population.

"The present foreign currency al-
location system should therefore be
switched immediately to the auto-
matic approval system, thus liberal-
izing soybean imports. It is quite in-
comprehensible to discriminate
against American soybeans compared
with Brazilian soybeans which are
now imported freely under the auto-
matic approval formula.

"The third problem which re-
quires serious attention is the fact
that certain agricultural organiza-
tions are pressing the government to
raise the import duty on soybeans
from 10% to 25%. This is aimed
only to protect a small percentage
of the Japanese population. Soy-
beans and soybean products are in-
dispensable as daily foods in Japan.
They are consumed every day by
all the Japanese people. All related
industries of soybeans should get
together and fight for the interest
of the consumers by stopping this
movement to raise the tariff.

"The Japanese government should
not only liberalize the import of soy-
beans but also should reduce the
present import duty of 10% thus
enabling the purchase of soybeans
at any time from any country for any
quantity and at the price desired."

Our movie film, "The Green Bud,"
with "The Feature Story" were
shown. After the meeting was over
we inspected one of the largest
shoyu and miso factories and also
a tofu and natto plant. It is very in-
teresting to learn that U. S. soy-
beans are liked by the tofu makers
because of the bigger yield of tofu
compared with other soybeans. For-
eign material is however objected
to everywhere.

Early reports ... vested beans were generally good. Excessive weed growth may cause local trouble.

Reports from Soybean Digest crop correspondents and others:

Arkansas. Jacob Hartz Seed Co., Stuttgart (9-22): Considerable grass showing in earlier beans. Dorman soybeans will begin to move this week. Ogden and Hood, Oct. 10. Rice area soybeans are fairly uniform with small amount of grass. Cotton areas have heavy infestation of grass and weeds. Frost will kill the grass and weeds before beans are ready. On first soybeans delivered non-irrigated yield ran about 15 bushels, moisture about 14%. Irrigated soybeans will be equal to or slightly less than last year. 50% of the crop will be held after the first of the year for sale.

Georgia. Weekly Weather and Crop Bulletin (9-22): Ample moisture supplies have improved the outlook for soybeans. Are in mostly good to fair condition.

Illinois. L. Parke Kerbaugh, Stanford (9-21): Most beans harvested to date have some green beans. Lowest yield heard of was 13 bushels. Some 30-bushel beans reported. Lots of grass, some weeds in early beans. Quality good, moisture average, some foreign material.

Nebr.	20.6	30.0	28.5	1,919	[illegible]
Kans.	11.8	22.0	21.0	4,094	9,262	8,610
Del.	16.8	22.5	22.0	1,529	3,622	3,674
Md.	18.0	22.0	21.0	2,136	4,246	4,200
Va.	17.8	22.5	21.0	3,274	6,052	5,817
N. C.	16.8	23.0	23.0	5,426	10,212	10,971
S. C.	12.0	15.5	15.5	1,782	5,611	6,060
Ga.	11.1	12.5	14.5	536	1,125	1,189
Fla.	[1]19.3	25.0	24.0	[1]424	1,150	1,104
Ky.	18.0	24.5	25.0	2,286	3,871	3,500
Tenn.	18.4	23.5	24.0	3,554	6,486	6,960
Ala.	19.3	22.5	23.0	1,646	2,970	3,289
Miss.	16.2	23.0	24.0	7,013	18,400	20,736
Ark.	18.0	24.5	24.0	15,163	49,637	53,112
La.	17.4	22.0	23.0	1,196	2,860	3,174
Okla.	11.8	22.5	22.0	455	1,012	1,188
Tex.	[1]18.9	26.0	30.0	106	1,378	2,250
U. S.	21.0	24.2	24.2	326,020	574,413	532,669

[1] Short-time average. September 1959 report, crop reporting board, AMS, USDA.

Iowa. C. R. Weber, agronomist, and J. M. Dunleavy, plant pathologist, Iowa State University, after a 900-mile survey in all quarters of Iowa Sept. 8 and 9: "Since our last survey, July 8 and 9, soybeans have improved in yield potential because of improved moisture and growing conditions in August. Few areas are seriously in need of moisture. Our yield estimate for July was above the normal 23.1 bu/a (1949-58). Now our best estimate is 26.5 or 27.0 bu/a. If we have 2 weeks without killing frost, most beans will mature—3 weeks will mature all. Volunteer corn is not as prevalent in soybeans as in 1958."

Kansas. B. E. Henline, Soy-Rich Products Inc., Wichita (9-21): Harvest in full swing. Beans are arriving with less foreign material than any prior year. Bean yield reported 20 to 40 bushels, excellent quality. 10.5% to 12.5% moisture; .5% to 2.5% foreign material. Ralph S. Moore estimate for Kansas 10 million bushels; B. E. Henline estimate 9.06 million bushels.

Kentucky. David Frymire, Ohio Valley Soybean Cooperative, Henderson (9-21): This will be latest maturing crop for several years. Heavy growth of late weeds in beans. Yield is good. There is 10% or more damage in the early matured beans.

Minnesota. Leo C. Lester, Worthington: Crop maturity 10 days ahead of normal. Yield 15 to 30 bushels per acre. Quality good, moisture 9% to 14%, foreign material 0% to 5%.

Mississippi. W. T. McKinney, Anguilla (9-21): Crop condition excellent. Weather and moisture conditions almost ideal for beans. Harvest will begin about Oct. 20. Frequent rains caused abnormal amount of foreign growth. Many fields will be difficult to harvest. Looks like about 25-bushel average. Not over 20% will be stored if price at harvest is $1.90 or above. More farmers than usual have contracted to deliver beans as harvested at agreed price. Generally around $1.95.

Missouri. E. W. Traschel, Helena: Due to a very wet May bean acreage has more than doubled around here. Five years ago you found hardly anybody who could talk beans. Now most everyone is raising them. Growing conditions in June were ideal but windstorms in July put many early fields down. Then came a dry spell in late July, August and September and above average temperatures. I only expect an average yield.

Harold Lumsden, Essex (9-22): Clarks 75% harvested, Dormans beginning to move. Clarks generally are not up to last year. We have a big crop.

R. Thompson, Lafayette Elevator Co., Lexington, Mo. (9-19): Soybeans harvested very dry. Quality good. Yield above average. Foreign material average.

Ohio. G. G. McIlroy, Irwin (9-19): Good frost on 17th stopped growth but I do not think much damage. Lots of weeds. Waiting for weeds to dry up may delay harvesting in some instances. Reports indicate record yields.

Oklahoma. Lloyd Cowgill, manager Miami Milling Co., Miami (9-20): Early harvested soybeans not very good. Yield 12 to 15 bushels. Good quality, low moisture. 50% will go into storage.

Ontario. R. H. Peck, River Canard (9-21): Frost on Sept. 17 killed top leaves. Harvest may possibly start by Oct. 5. Harvest should not be any particular trouble. Some weedy fields, but generally clean. Yield for immediate area should be above average.

Soybeans and Oil Top In 1959 World Trade

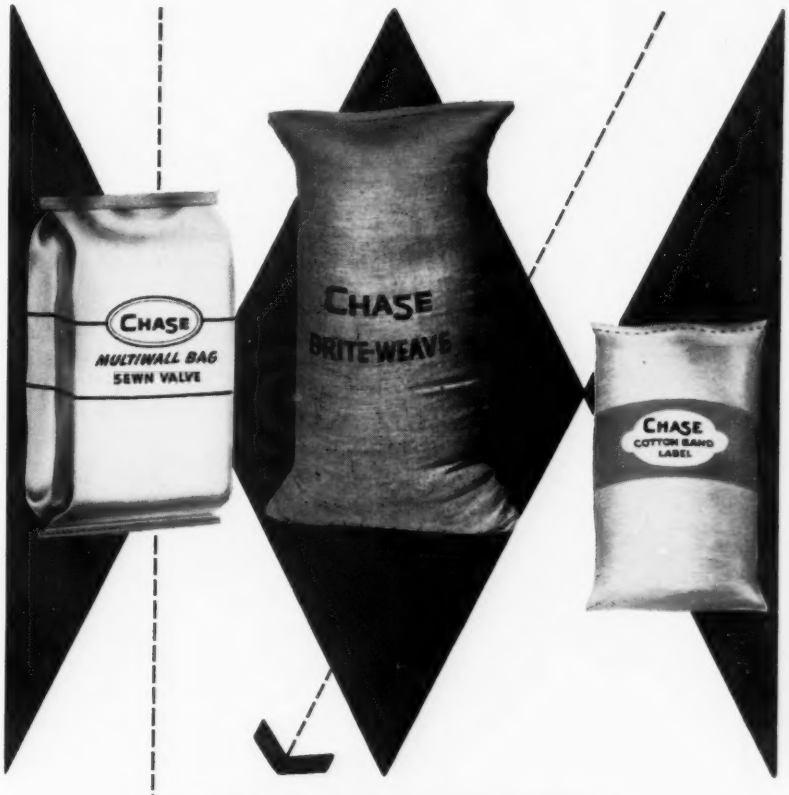
FOR THE FIRST time in history combined soybeans and oil will be at the top in world trade of fats and oils in 1959, notes Siegfried Mielke & Co., Ratzeburg, Germany.

Up to 1958 combined copra and coconut oil were in first place. In the past 3 years the disposal of the heavily rising production of edible oils has been favored by two factors, according to Siegfried Mielke:

1—Decline in the production of copra and marine oils since 1957 and the stagnation in butter output this year.

2—The good demand for food fats and oil as contrasted with industrial fats and oils.

This year's world net exports of edible vegetable oils are likely to reach about 2.76 million metric tons. Exports of copra and coconut oil will probably continue their decline, to 1.05 million metric tons compared with 1.10 million metric tons last year.



DEPENDABILITY

IN BAGS FOR YOUR SOYBEAN MEAL

CHASE BAG COMPANY

For safe shipment—low cost—in bags easy to fill, close, stack and store... always insist on *Chase* dependability. Make a single call, order any or all—any type, any size, any quantity.

CHASE MULTIWALL PAPER CHASE COTTON
CHASE BURLAP

General Sales Offices
355 Lexington Avenue, New York 17, N. Y.

32 Bag Plants and Sales Offices coast to coast—a Nationwide Staff of Bag Specialists.

Our 112th Year of Bag-Making Progress.

GRITS and FLAKES . . . *from the World of Soy*

Breton Named Vice President of Amsco

Leon J. Breton has been elected vice president of **American Mineral Spirits Co.**, Chicago, it was announced by Edward M. Toby, president.

He has been responsible for market survey activities and consumer research encompassing petroleum chemicals, petroleum derivatives and solvents for this national marketer of these petroleum specialties. He was promoted from assistant vice president working under the supervision of President Toby.

Leon J. Breton

He will continue to headquarter at the Chicago office.

Before coming to Chicago Mr. Breton was manager of Amsco's metropolitan division. He was in charge of the company's less-than-carload distribution of solvents and allied chemicals from its plants at Boston, Providence, Brooklyn, Philadelphia, Baltimore, and Carteret, N. J.

Nutrena Mill at Lennox, S. Dak., in Operation

A newly built **Nutrena Feed** plant at Lennox, S. Dak., has completed production equipment tests and begun full-time operations according to Walter Brigger, branch manager.

The mill, Nutrena's 15th in its 24-state marketing area, initially will turn out 40,000 tons of livestock and poultry formulas annually, Brigger said, but can as much as triple its output by adopting round-the-clock production schedules.

Distribution from Lennox will complement supplies from Nutrena's Minneapolis plant to the east and Sioux City, Iowa, mill to the south.

Nutrena's complete line of bulk and bagged feeds will be available, Brigger said, with the largest production volume initially devoted to poultry, swine and cattle formulas.

Facilities include, in addition to standard mixing, crumblizing, pelleting and handling equipment, four 50-ton raw ingredient storage bins, a number of smaller ingredient bins, and 20 25-ton finished feed bins located over a 50-foot truckloading scale. Two bulk trucks—one 8-ton capacity and the other 20-ton—have been assigned to handle the estimated 90% of production that will be devoted to bulk feeds.

Minnesota manager reports on SHANZER grain drier

"I believe in staying with a good thing – that's why our second drier was another Shanzer! Season after season, the trouble-free, full-rated performance of these units, even on extremely wet grain, has certainly earned our respect."

–Says, W. H. Lenton, Manager
Farmers Elevator Company, Inc.,
Stewartville, Minnesota.

Get more for your drier dollar, see your Shanzer representative, or write:

SHANZER MANUFACTURING COMPANY
SUtter 1-5200
85 Bluxome Street, San Francisco, California

John Milton White

H. Brent Cooke, Jr.

Appointments by Miller Smith Co.

H. Brent Cooke, Jr., who has been with Humphreys-Godwin Co., Memphis, for 23 years, joins **Miller Smith Co.**, Highland Plaza Bldg., Memphis, and will head their newly formed protein department.

John Milton White who has been with Miller Smith Co. for a period of time, will be with Mr. Cooke in the new department. Bill Miller and Frank Smith will continue to devote their time to the trading of cottonseed and soybean oils.

Ted L. Silvius, manufacturers' representative for **PTC Cable Co.** and other lines, was killed in an auto accident July 30. He leaves his widow, a grown son, and two daughters.

Move Chase Bag Co. Executive Offices

Chase Bag Co., leading national manufacturer of paper, plastic, textile and open mesh bags and packaging materials, moved its executive offices on Oct. 1 to the recently completed 22-story office building at 355 Lexington Ave. in New York.

F. H. Ludington, president of Chase, announced that the new offices will provide added space to handle the increased packaging requirements of Chase customers. The firm maintains 14 plants and 32 sales offices throughout the country.

For over 25 years the Chase Bag Co. executive offices have been in the Commerce Bldg. at 155 E. 44th St., New York. Now its entire headquarters staff are at the new location, including sales personnel serving the New York territory, general sales office, purchasing, accounting, advertising and administrative departments.

The structure at 355 Lexington Ave. was designed by Emery Roth & Sons, architects. It occupies the northwest corner of 40th St. and Lexington Ave. in the Murray Hill area of New York City, near Grand Central Terminal. Chase Bag will occupy the entire 13th floor and half of the 12th.

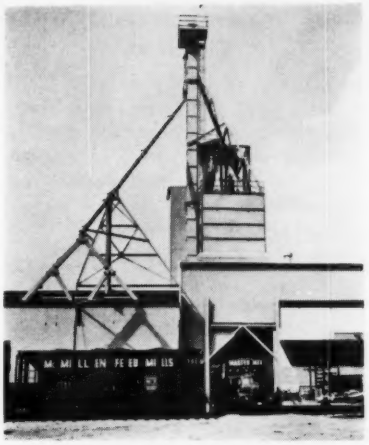
Ralston Purina Opens At Ottumwa, Iowa

Opening ceremonies of the new Ottumwa, Iowa, mill of the **Ralston Purina Co.** were held Sept. 19.

The mill will manufacture a full line of Purina Chows for livestock and poultry. It will have a capacity of about 100,000 tons of Chows per year. Approximately 50 persons will be employed. Local labor will be employed, and ingredients for the Chows will be purchased locally whenever possible.

Dietrich Rosenberg, manager of the **Ralston Purina Co's** plant at Encrucijada, Venezuela, has been named vice president of the company's international division in charge of operations in Venezuela and Colombia. He will remain as manager of the Venezuela plant.

Don G. Anderson has been appointed U. S. dealer development manager for **Cockshutt Farm Equipment Ltd.**, Brantford, Ontario. His responsibility will be strengthening Cockshutt's sales organization in the U. S. farm market.



NEW WAREHOUSE, bulk storage, and truck loading facility at Central Soya's Marion, Ohio, plant. Both rail cars and trucks find ready access to feed at the new facility.

Central Soya Co. Opens Ohio Plant

A new ultra-modern warehouse, bulk storage and truck loading facility were unveiled at Marion, Ohio, by the **Central Soya Co.,** and its feed division, McMillen Feed Mills, during a Master Mix dealer day "open house" program.

Constructed on property adjacent to the company's plant in northeast Marion, the new facility "will enable us to provide improved service to dealers," according to Max Spencer, manager of Central Soya's Marion plant.

Eighteen separate welded-steel bins give the bulk storage unit a capacity for 280 tons of bulk feeds. The bins are located directly over a 50-ton truck scale for "simultaneous and convenient loading and weighing of bulk delivery trucks."

The new warehousing operation is tied to the feed production area by an overhead bridge, which houses the belt systems for transferring both bulk and truck feeds to the storage and distributiion areas.

General contractor for the project was the Fairfield Engineering Co., a Marion firm that specializes in design and manufacture of conveying and storage equipment.

Arthur Otto Tischer, 50-year-old farmer and soybean grower, died recently at his home near Callao, Mo., after a lingering illness. Dr. Tischer, who was born in Germany, spent most of his early years in New York, where he worked as a consulting chemist. He was a graduate of Northwestern University with a doctor's degree in chemistry and taught at Northwestern for 3 years. He had resided on a farm near Callao for the past 3 years. He was a member of the American Soybean Association, served as a crop reporter and attended its conventions.

Dean Fales, sales manager of the Ohio sales division for the **Ralston Purina Co.,** has been named Canadian regional sales manager. He took up his new duties Oct. 1, with headquarters in Toronto. He replaced R. A. Blair who is retiring.

Two new staff members have been appointed to the Baton Rouge, La., grain office of **Cargill, Inc.** Charles E. Bachman, assistant export manager in Cargill's Portland, Ore., office, will become coordinator of export and transportation facilities, and David W. Kirk, Jr., Memphis, Tenn., merchant, will be assigned to Baton Rouge in a similar post.

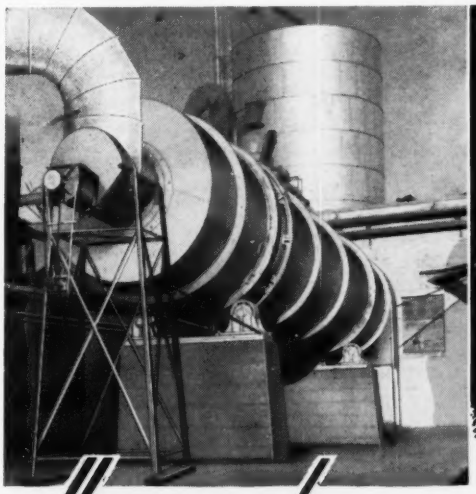
Davidson-Kennedy Associates Co., engineer and builder of processing plants, has announced that Horrall Harrington has been appointed manager of commercial development. He will handle sales of complete chemical and general purpose process facilities as well as investigation and coordination of industrial development and leaseback arrangements. He joins DKA from Miller Davis Co., where he was director of special sales.

McKee Feed & Grain Co., Muscatine, Iowa, has contracted with Mill & Elevator Co., Des Moines, to build a new commercial feed plant there which will have production capacity of 300 tons a day. Harry McKee, vice president, said the new plant will be one of the most modern and automatic in the Midwest and a completely automatic push-button operation.

The promotion of Frank B. Tisdale to the position of manager of the **Master Feed & Grain Co.,** Orangeburg, S. C., has been announced by Central Soya Co., Inc., Fort Wayne, Ind., effective Sept. 1. He joined the company in July 1956 and came there from the Orangeburg Gin Co.

Peter J. Clarke, 56, purchasing director and assistant secretary of **Rohm & Haas Co.,** Philadelphia, was killed in an automobile accident near the city Sept. 16. He had served as head of the purchasing department since 1939 and as assistant secretary since 1943.

James S. Backoff, grain broker for **Daniel F. Rice & Co.,** and Francis D. Wolfe, assistant floor manager for **Bache & Co.,** have been elected to membership in the Chicago Board of Trade.



DAVENPORT

De-Watering and Cooling Equipment ROTARY Steam Tube, Hot Air and Direct Fire Dryers

Honeymead uses **DAVENPORT ROTARY AIR COOLER**

10'-0" diameter x 50'-0" long. Davenport Rotary Air Cooler operating on soy bean meal at the Mankato, Minnesota Plant.

If you have a de-watering or cooling problem, let us send you our complete, illustrated catalog. D

For quick reference, see your *Catalog.* D ***Chemical Engineering***

davenport MACHINE and FOUNDRY COMPANY

DAVENPORT, IOWA U.S.A.

PUBLICATIONS

Soybean Oil Can Prevent Bloat

ALFALFA pasture trials during 1958 again showed that soybean oil at the rate of ¼ pound per animal can prevent bloat for 3 to 4 hours when fed in grain immediately before grazing the animals.

Previous work aimed at bloat prevention indicated that increasing the oil had an additional beneficial effect if the mixture was kept at a ratio of about one part oil to five parts grain. Increasing the percentage of oil in the grain, however, makes the mixture unpalatable and cuts down consumption by some animals. A mixture of oil with ground corncobs and grain was less effective than a mixture of oil and grain alone. And feeding ground or flaked raw soybeans had little or no effect.

Treatment of severe cases of bloat by putting ⅓ pound or more of lard oil into the paunch through a stomach tube gave prompt relief in most cases. Injection of the oil by needle and syringe directly into the rumen is an effective alternative in severe cases where a stomach tube can't be used. Speed is important; the earlier the animal can be treated, the better.

These conclusions are based on the results of a concerted experiment station study conducted by researchers in animal and dairy husbandry, chemistry, agronomy and bacteriology. Key personnel working on this problem are N. L. Jacobson, R. S. Allen, Wise Burroughs, W. R. Woods, J. M. Scholl and P. A. Hartman.

Iowa Farm Science, Vol. 14, No. 2, August 1959, Ames, Iowa

Mississippi County, Ark., Led the Nation Last Year

MISSISSIPPI COUNTY, Ark., produced over 8 million bushels of soybeans in 1958, replacing Champaign County, Ill., long the nation's leading soybean growing county, in top place. Champaign grew 5,467,500 bushels of soybeans last year.

Mississippi County's production in 1958 was probably an alltime record.

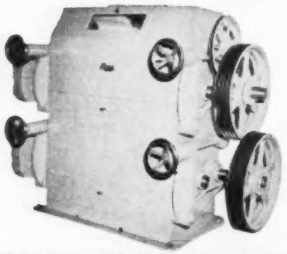
Million-bushel counties are commonplace anymore. A total of 122 of them in 16 states produced 1 or more million bushels last year.

There were eight 4-million-bushel counties, six 3-million, and 28 2-million-bushel producing counties in 1958.

Soybeans Harvested for Beans by Counties, 1957 and 1958, Acreage, Yield, Production. 24 states included. Crop reporting Board, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

ANNOUNCING

ALL NEW



HEAVY DUTY SOYBEAN & CRACKING MILL IN 10x36 · 10x42 TWO & THREE PAIR HIGH & SPECIAL SIZES

ROSS HEAVY DUTY SOYBEAN MILL

This new Ross Model mill is the latest addition to the Ross line of Roller Mills, for over 25 years the Acme of perfection in roller mills and rolls for all purposes: grinding, crimping, crumblizing, cracking and flaking. 24 Sizes in four different models available. Standard Rollerator, Heavy Duty, Heavy Duty Jr. and 2 High Models.
The Ross Heavy Duty 2 and 3 Pair High Heavy Duty Soybean Mill or Cracking Mill is a specially designed unit for the cutting and processing of soybeans and other hard grains. Each unit is expressly designed for the heavy duty 24 hour service requirements necessary to process soybeans. Equipped with special alloy Turn-Tuff rolls of highest quality, you are assured of maximum service with the special Turner Rolls of super hard quality. Heavy Duty ½" steel seamless welded housing with oversize roller bearings and special solid corrugated feeder rolls of semi steel, all stainless steel gates, heavy plated fittings, heavy duty enclosed chain differential drives with positive roll tramming, quick throwout levers and shear washer protection for rolls. A special soybean corrugation is usually used on these mills available in reduction multiples of 4-5 to 12-14 corrugations per inch, with differentials to suit.
All Ross units are furnished with highest grade deep chill, Turn-Tuff chilled iron rolls by Turner, Worlds largest roll makers. Tough hard biting corrugations for years of service.

★ No Gadets ★ 24 Hour Service ★ Positive Tram & Roll Setting
★ Dust Free Operation ★ All Metal ★ Anti Friction Roller Bearings
★ Solid Roll Feeder ★ Stainless Steel Gate ★ V-Drive to Suit
★ Enclosed Chain Differential Drive ★ Alloy Shafts ★ Sensibly Priced
★ Write for folders & prices on Mills and roll chills. Free Complete Catalogue ★ Agents-Principal Cities

ROSS MACHINE & MILL SUPPLY, INC.
12 N.E. 28th St. JAckson 8-2132 OKLA. CITY, OKLA.

County Production In South Carolina

A TOTAL of 362,000 acres of soybeans was harvested in South Carolina last year. The four leading counties, all in the south half of the state, were Orangeburg 74,000, Calhoun 70,000, Allendale 41,000, and Hampton 37,000.

The Agriculture of Fairfield County, South Carolina. County Statisical Series No. 10. South Carolina Agricultural Experiment Station, Clemson, S. C. Contains table showing acreage of major crops all South Carolina counties.

FEEDING

Soybean Oil Rates High for Broilers

RESEARCH at the University of Arkansas has shown that soybean oil is a highly acceptable fat for use in broiler feeds. In a series of experiments, it was found to be equal and in many cases superior to the animal fat used. With these facts in mind, a series of feeding trials were initiated to study various cooking methods for processing whole soybeans for use as an ingredient for chick feeds.

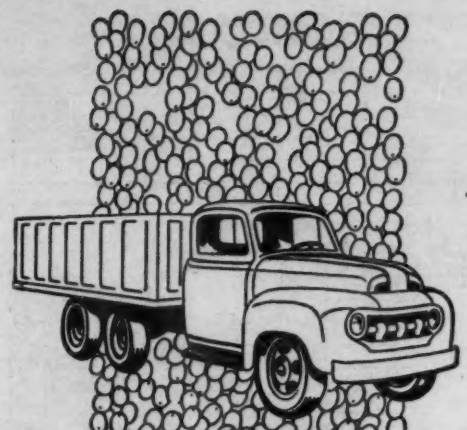
Most of the broiler diets now used in the Arkansas broiler area contain relatively large amounts of dehulled soybean oil meal. For this reason, the soybeans used in these experiments were also dehulled and flaked before they were given the various treatments of temperature and moisture.

The processing of soybeans, fat intact, appears promising, especially from an efficiency of feed utilization standpoint. In these studies, optimum performance was obtained when the dehulled soybean flakes were cooked 30 minutes at 6 pounds of steam pressure with 30% of added water.

Processing of Soybeans for Broiler Feeding. By E. L. Stephenson and Leland Tollett. Feedstuffs, July 25, 1959. 2501 Wayzata Blvd., Minneapolis 40, Minn.

Protein and Amino Acid Nutrition of the Laying Hen. By Hans Fisher. Feedstuffs, Jan. 17, 1958, pages 18-20.

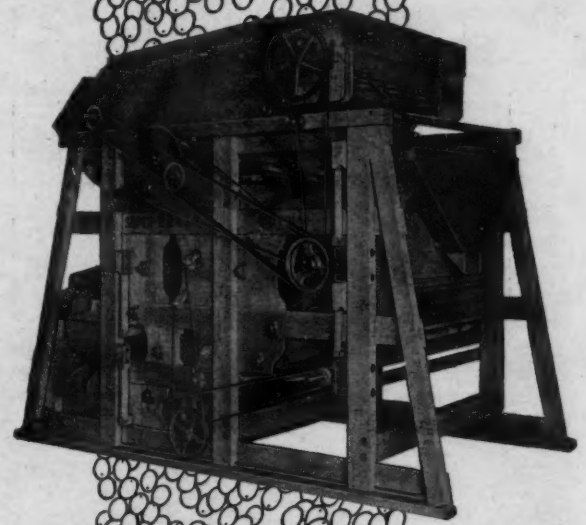
Tankage Not as Good as Soybean Meal for Pigs. By B. F. Barrentine and C. B. Shawyer. Mississippi Farm Research, Jan. 1959, page 3. Agricultural Experiment Station, State College, Miss.



Buy 'em clean... Sell 'em clean!

[Clipper clean]

The new grades make it extra profitable to ship *only* cleaned beans.

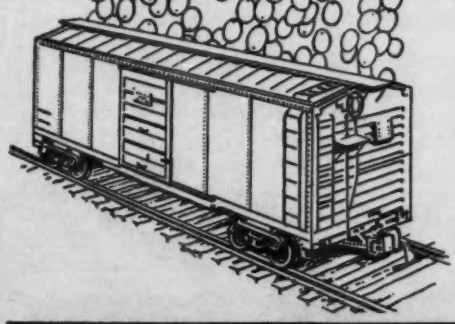


THE SUPER 2248-D
3000 BU. PER HR.
7½ HORSE DRIVE

This 2248-D Twin-flow "Bigboy" and the smaller Super 228-D—1200 bu. capacity—5 horse drive are two exceptional soybean cleaners. Customers say "we can now receive—clean and load in a matter of minutes." For those who prefer—both models also come in all-steel (not just armoured) construction.

A complete line of Clippers are available in sizes to fill every capacity and job requirement.

Heavy metal construction Super-Duty Clipper Elevators are available in any height and capacity.



Write for complete information on Clipper Cleaners, Elevators and facts on Clipper-Randolph Soybean Driers.

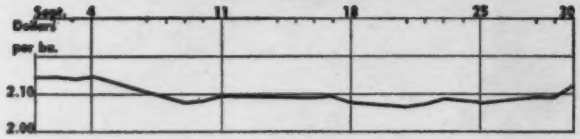
ALL CLIPPERS ARE MADE UP AFTER ORDER IS PLACED

CLIPPER
CLEANERS • DRIERS and HANDLING EQUIPMENT

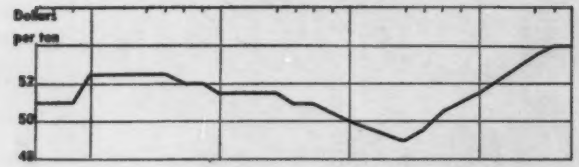
A. T. FERRELL and COMPANY

1621 Wheeler St., Saginaw, Michigan Ph. PLeasant 2-6123

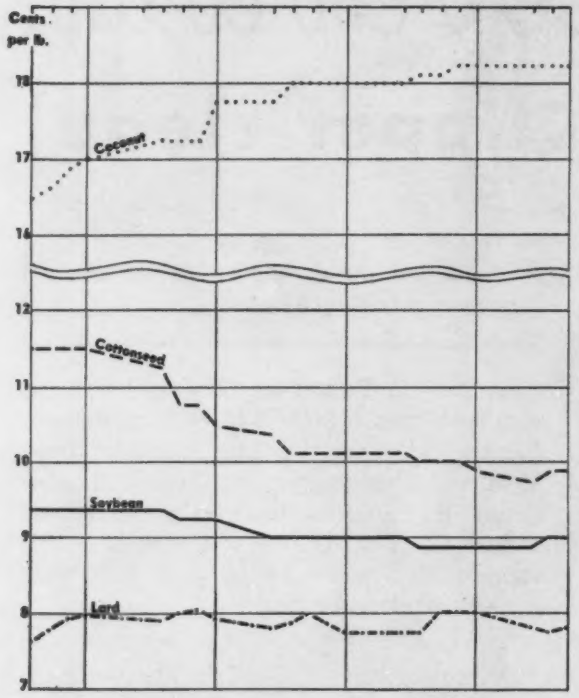
DAILY MARKET PRICES
No. 1 Cash Soybeans, Chicago



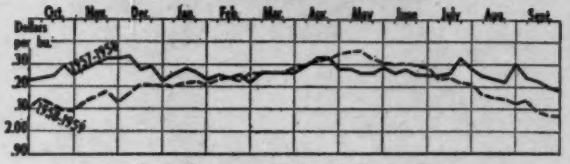
Bulk Soybean Oil Meal, Decatur



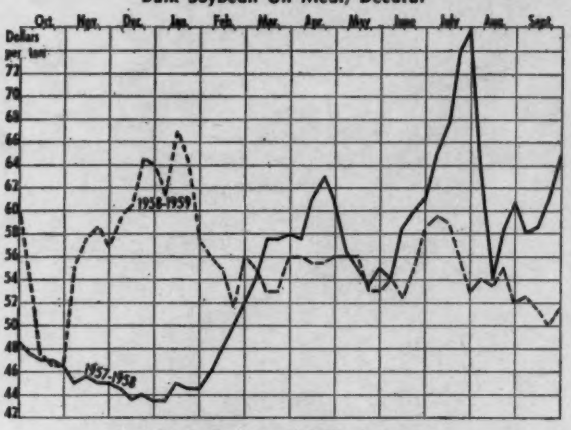
Crude Vegetable Oils and Lard



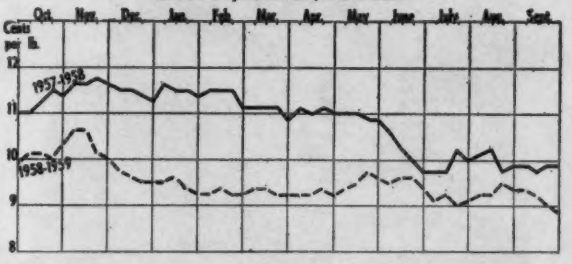
TRENDS AT A GLANCE (Weekly Close)
No. 1 Cash Soybeans, Chicago



Bulk Soybean Oil Meal, Decatur



Crude Soybean Oil, Tankcars



September Markets

MARKETS FOR soybeans and soybean products generally were lower but showed periods of strength during September. Soybean oil, along with cottonseed oil, reached a 7-year low during the month.

Factors controlling the markets were the beginning of harvest, conflicting opinions on the size of the crop and even day-to-day weather reports. Markets were vulnerable to even minor developments. Rains that delayed harvest over wide areas were a strengthening influence at month's end.

The size of early deliveries of 1959-crop soybeans did not quite come up to trade expectations in spite of the earliness of the crop in the central producing area. There was some tendency to discount these reports since yields of early ripening varieties are apt to be small.

Farmers were said to be slow sellers in some areas due to price dissatisfaction. But it also appeared that harvest will be drawn out due to difference in maturity time of varieties and also to the variation between dry and wet areas, and there might be no heavy harvest glut anywhere.

There was a growing acceptance in the trade of government forecasts that indicate supplies for the coming year will cover all needs but that the soybean carryover will be pared to a minimum during the coming marketing year.

The Commodity Stabilization Service announcement of its domestic sales price up to Jan. 1 of soybeans well above the current spot price also helped to strengthen the market. A factor was the indication by USDA that soybean exports will continue to grow during the coming year.

Wall Street Journal noted that a larger acreage of soybeans than normal was planted after winter wheat due to the earliness of the wheat harvest this year, and this made for a larger soybean acreage. States affected were Kansas, Nebraska, Illinois, Indiana and Ohio.

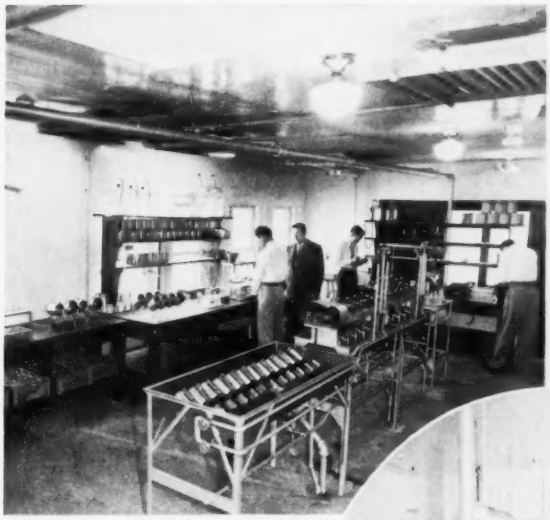
BYPRODUCTS. The price of acid soybean soap stock dropped from 5¼¢ to 5¢ per pound during August. And raw soybean soap stock, from 2½¢ to 2¢ per pound. Both remained slightly above cottonseed soap stocks in price.

1957 AND 1958 SOYBEAN CROPS

	1958-59	1957-58
Soybean crushed Oct. 1-Aug. 31	373,773,000 bu.	328,739,000 bu.
Exported Oct. 1-Aug. 31	105,117,000 bu.	83,858,000 bu.
Balance on hand Sept. 1 for processing, export Or carryover	85,606,000 bu.	7,015,000 bu.
Total soybeans inspected for overseas shipment including lake shipments to Canada Oct. 1-Sept. 25	107,944,172 bu.	85,383,117 bu.

Serving The Soybean Industry Since 1935

7 - Chemical Laboratories to serve you.



The Chicago, Ill., laboratory is equipped with the most modern equipment for refining soybean oils and all soybean products and feeds.

CHICAGO 19, ILL.
1526 East 75th St.

DES MOINES, IOWA
1514 High St.

CAIRO, ILL.
4007 Sycamore St.

The Oil Refining Department at the Memphis, Tenn., laboratory, with a capacity of 150 refinings daily, and all soybean products and feeds

The Des Moines, Iowa, laboratory with all the latest equipment for refining oils and all soybean products and feeds.

LITTLE ROCK, ARK.
412 W. 7th St.

CLARKSDALE, MISS.
75 Sunflower St.

WILSON, ARK.
7 Union St.

Specializing in Marine Surveying and Inspection at Chicago port

WOODSON-TENENT LABORATORIES

Official Chemists for the Chicago Board of Trade
Official Chemists for National Soybean Processors Association

MAIN OFFICES: 265 SOUTH FRONT ST. MEMPHIS, TENN.

WASHINGTON DIGEST

Market Development Work Gets Boost

By PORTER M. HEDGE
Washington Correspondent for The Soybean Digest

THE COOPER AMENDMENT to the P. L. 480 bill will "greatly increase" total food distribution, Secretary Benson told a recent press conference. It will chiefly affect fats and oils, officials say, but they're unprepared to estimate how much increase in domestic relief distribution will result.

The amendment by Senator Cooper (R., Ky.) requires that surplus food shall be made available to U. S. needy persons before it is sold abroad for foreign currencies. It applies to foods on the P. L. 480 list which are not included in the foods USDA makes available to local welfare agencies and to the needy in institutions. The big items that fall in this category are soybean and cottonseed oil products, and lard. The list has included at various times in the past such varied foods as dry edible beans, citrus and other fruits, and frozen chicken, turkey, pork and beef.

USDA opposed the amendment. Officials have not fully interpreted the law, but they stress that it says this additional domestic food distribution shall be made "insofar as practicable," and also that it specifies "in such quantities as he (Secretary) determines are reasonably necessary."

USDA objects because it thinks this distribution will replace to some extent regular commercial sales. A spokesman for the Secretary told this reporter that fats and oils are very low priced, and that "no matter how poor people are, nearly all of them can afford a pound or two of margarine at 18¢ or 20¢ a pound." He added that "we are not heartless, but margarine is a commercial product that hitherto has sold for dollars."

The operating men who are beginning to shape up the program say that the Cooper Amendment wouldn't necessarily require domestic distribution of margarine, or even of shortening. They point out that edible oils are closely related, and for the purposes of the law might be regarded as interchangeable. For example, they say that offering butter, if it were in surplus, would probably meet the letter of the law.

Officials are also debating how long these fatty foods would have to be offered to comply with the law. Privately they agree that 1 month wouldn't do, but are inclined to think that making them domestically available for 4 winter months would be okay. That's probably what will be done, starting in December.

There are 5.4 million needy persons eligible to receive surplus foods through state welfare agencies. In addition, 1.4 million in institutions receive relief food. The number actually receiving food averages about 6.4 million. It varies seasonally—less in the summer, more in the winter.

USDA's relief food list now includes wheat flour, corn meal, rice, dried eggs and dry skim milk.

Surplus Fats

When fatty foods were distributed for short periods in the past, the rates per person per month were about 1 pound of shortening and 1½ pounds of butter.

Public opinion may force school lunch distribution of these fatty foods under the Cooper Amendment, once it becomes known that they're on the list of relief foods. Officials are allowing for this possibility. There are 12 million children in the regular school lunch program, and another 2 million receive some food in supplementary programs.

It seems probable that 25 to 50 million pounds of edible oil products will be distributed between next December and June in this new P. L. 480 program. How much of this will displace commercial sales is anybody's guess. The total may equal 1% to 2% of total exports of edible oils.

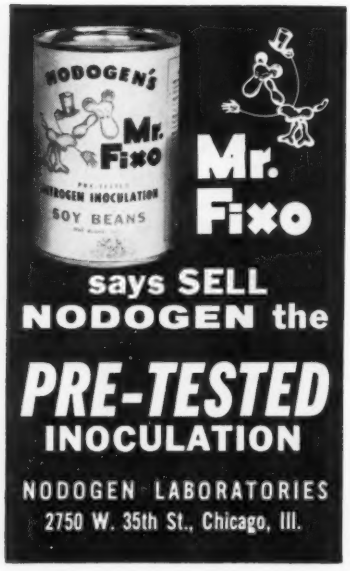
Incidentally, Senator Cooper's purpose was not to increase outlets for fats and oils, but to force Secretary Benson to make fatty and other tasty foods available to the unemployed and other needy. The Secretary has had both the authority and the funds to do this, and his refusal has been a sore point with many members of Congress for 2 years. Cooper slipped his program in through the back door.

Another fats and oils amendment to P. L. 480 by Senator Humphrey (D., Minn.) is important. It requires USDA to buy, if necessary, for foreign donation enough animal fats and edible oils to maintain the support level for soybeans and cottonseed without requiring their acquisition under the price support program.

Market Development

Foreign market development work will get a boost in the new P. L. 480 law. For the first time a definite amount has been earmarked for this work—5% of spending. Officials estimate this at a little over $40 million. The total so far spent since the start of the program has been only $18.3 million. The idea of this amendment is to force Secretary Benson to expand market development work far beyond anything yet done.

The food stamp plan amendment is a token victory for those in both parties who have tried off and on for 15 years to get this plan enacted into law. Using it is permissive, and Secretary Benson said right off that he doesn't think it necessary and doesn't intend to start it. The law requires, however, that USDA give Congress a complete report within 6



ANOTHER DAVID-ANOTHER GOLIATH
Courtesy Archer-Daniels-Midland Co.

months on how a stamp plan would operate, and with what results.

Export Outlook

USDA says the United States is about the only place in the world where the export availability of fats and oils can be increased the coming year, what with the tight copra situation and the rapeseed supply down.

Officials are quite optimistic about 1959-60 exports. In addition to some 400 million pounds—give or take a little—unshipped under P. L. 480 on Sept. 30, exports of new oil around 700 million pounds are expected. Commercial exports are estimated at 400 to 425 million pounds, compared to about 360 million pounds this season. Grand total about 1.5 billion pounds, compared to around 1.25 to 1.3 billion pounds this year.

USDA Announces Soybean Pricing Policy Oct.-Dec.

THE U. S. DEPARTMENT of Agriculture has announced that the selling price during the October-December 1959 period for soybeans in the Commodity Credit Corp. inventory for domestic crushing or export will be the market price but not less than 20¢ per bushel above 1959 county price-support rates. This will apply to both 1958- and 1957-crop soybeans in the CCC inventory.

This pricing basis is designed to encourage the orderly movement of 1959-crop soybeans into commercial channels. The pricing basis for CCC-owned soybeans after Dec. 31 will be announced well in advance of that date.

The county support rate for grade No. 2 soybeans at the point of storage will be used in determining the minimum sales price in-store. Value of any transit billing will be added. Market discounts for quality factors will apply.

USDA also announced that both 1957- and 1958-crop soybeans will be eligible for exchange under the barter program beginning Oct. 1. The pricing for barter exchanges during the October-December period will be the same as for other sales, except that delivery will be f.o.b. vessels Great Lakes ports and delivered at ports elsewhere. The sales price will include an adjustment for transportation and other changes required to get the soybeans to the delivery point for barter exchanges.

No soybeans will be sold from the CCC inventory between now and Oct. 1, 1960, at less than the price support level for the 1959 crop.

Governor Gaylord Nelson officially welcomed the Ralston Purina Co. to Wisconsin at grand opening ceremonies of the company's new mill at Fond du Lac Sept. 12.

- MARKET STREET -

We invite the readers of THE SOYBEAN DIGEST to use MARKET STREET for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here. Rate 10c per word per issue. Minimum insertion $2.00.

WANTED: FLAKING AND CRACKING rolls, meal coolers and driers and rollermills. Soybean Digest, Box 319-J, Hudson, Iowa.

ALL KINDS OF GOOD USED grain processing machinery. E. H. Beer & Co., Inc., Baltimore 24, Md. Phone Dickens 2-6606.

1956 DAFFIN—EXCELLENT CONdition—new rubber, Ford 2-ton truck, immediate delivery. Financing available. Call or write G. Wetter, Delano, Minn. Phone 328.

NEW ELECTRIC MOTORS, ALL sizes, grain loading openings, electric cords, turbine spinner ventilators, grain conditioning equipment, the famous Hot-Spot remover. Air-O-Vator Co., Inc., Box 697, Scottsbluff, Nebr.

FOR SALE—ANDERSON Expellers and French screw-presses, cookers, driers, 5-high, 48-inch crushing rolls, 36-inch attrition mills, sewing machines, hammermills, cracking rolls, filter presses. Ray L Jones, 1923 Hayselton Drive, Jefferson City, Mo.

FOR SALE — 24-INCH BOXCAR loader, Stephen-Adamson, complete with 3 hp single-phase motor mounted on wheels, used, $750. One Link-Belt power shovel, complete with sheaves and swivel, less motor, $300. Call or write Wonder State Manufacturing Co., Paragould, Ark.

USED MOISTURE TESTERS—Don't pay a fancy price for a new tester when we can sell you an excellent factory reconditioned instrument. All popular makes available. Prices start at $125. Send for FREE CATALOG on grain and seed testing and handling equipment. Burrows Equipment Co., 1316-D Sherman Ave., Evanston, Ill.

FOR SALE—ONE EUREKA NO. 7 grain cleaner, good condition, complete with soybean screens. Price $750. Funk Bros. Seed Co., P.O. Box 911, Bloomington, Ill.

ANDERSON & FRENCH PRESSES
AUXILIARY EQUIPMENT FOR
SOYBEANS AND OTHER
OIL SEEDS
PITTOCK & ASSOCIATES
GLEN RIDDLE, PA

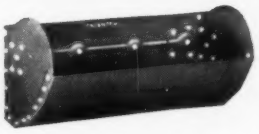
SEED—HILL SOYBEANS. IF YOU are interested in securing seed of this very early new variety Hill (30 days earlier than Lee variety) write to Bard Selden, Tunica, Miss.

GRAIN STORAGE—LARGE CAPAcity grain tanks, steel buildings grain handling equipment, dryers, bolted steel tanks. Engineering. Complete installation. For further information write W. B. Young Co., Marshall, Mo.

MOTORS-GENERATORS, ALL sizes, new and rebuilt. Starters, accessories, pulleys and repair parts. Gear motors. Falk shaft mounted reducers. Couplings and V-belt drives. Expert repair service. Nussbaum Electric Co., 220 E. Douglas Ave., Fort Wayne, Ind.

GRAIN STORAGE BINS WHOLEsale only—dealer cost as low as 14¢ bushel f.o.b. Kansas City. Freight equalized with Birmingham, Ala., in carload lots. Sizes: 1,000 bu. up to 36,000 bu. In-storage aerating systems available if desired. Black, Sivalls & Bryson "Perfection" distributor for Alabama, Georgia, Tennessee, North and South Carolina. For details write, wire or call collect Harry J. Whelchel Co., 1218 E. Main St., Chattanooga, Tenn.

A Sales Record of More Than
15 MILLION SUPERIOR ELEVATOR CUPS
DP-OK-CC-V



For Better Results—Longer Life—More Capacity

"Elevator Cups Is Our Business, Not A Sideline"

K. I. WILLIS CORPORATION
MOLINE, ILLINOIS

PROCESSED PLANT PROTEIN FOODSTUFFS

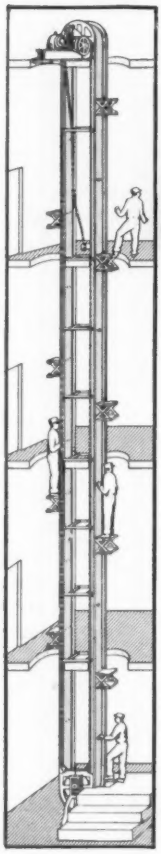
Edited by AARON M. ALTSCHUL, U. S. Department of Agriculture, New Orleans, La.

38 Contributors
955 pp., illus., $26

Deals with the properties of processed plant proteins affecting their use as animal or human food . . . And the processing of individual plant proteins . . . Oilseed cakes and meals are exhaustively treated.

A must for every scientific and technical library.

Order from Soybean Digest, Hudson, Ia.



HUMPHREY Manlift ELEVATOR

★ ***Eliminates Stair Climbing***
★ ***Saves Time—Reduces Fatigue***
★ ***Safe—Economical—Dependable***

The Humphrey Elevator transports personnel simultaneously up and down—eliminates all stair climbing—provides quick access to any floor for servicing machinery. Riders just step on and off—control rope instantly starts and stops the endless belt—no waiting or lost time!

Can be installed in new or old multi-floor buildings. Initial cost, installation and operating costs are much lower than conventional elevators. Widely used in garages, flour mills, grain elevators, paper mills and all types of industrial mills and factories.

Write us stating your requirements and we will furnish full information, blue prints, prices.

Circular on request

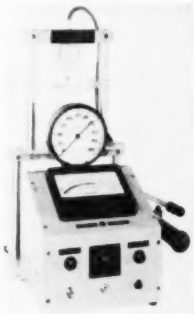
Manufactured by
HUMPHREY ELEVATOR CO.
384 1st AVENUE N.W., FARIBAULT, MINN.

Humphrey is the original Manlift Elevator, made continuously since 1887.

NEW PRODUCTS and SERVICES

MOISTURE METER. A new instrument developed by the U. S. Department of Agriculture for determining the moisture content of agricultural products such as soybeans, soybean meal, cottonseed products and so forth, is now available.

The Model MS Moisture Meter may be expected to be used by oil mills, cotton gins, seedsmen and others for the determination of storability, grading and process control.



Determinations are made speedily and with good accuracy. Only 40 to 60 seconds are required for a measurement. No weighing of sample is needed.

A reliable and rugged electronic measuring system gives assurance of trouble-free operation.

The development of this instrument has involved several years of research by Charles E. Holaday and Marion E. Whitten at USDA.

For further information write Soybean Digest 10d, Hudson, Iowa.

GRAIN DRIER. Rite-Way Fabricating & Engineering Inc. has announced the development of a mobile push-button controlled infra-red grain drier that automatically removes moisture from all types of small grains and beans without destroying germination or nutritional value.

Field tests show that the Rite-Way grain dryer is 30% faster and costs but ½¢ per bushel for drying grain as against 7¢ per bushel for conventional driers, according to the manufacturer.

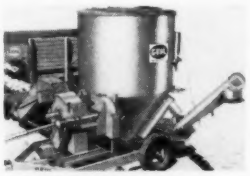
The drying process is entirely new. Powerful blowers and the movement of large volumes of extremely hot air are not needed.

Controlled infra-red heat energy from propane, natural and manufactured gas is the secret of the Rite-Way grain dryer.

For further information write Soybean Digest 10a, Hudson, Iowa.

PORTABLE MILL. A compact portable mill that grinds, mixes and delivers 2 tons of feed in a matter of minutes has been introduced by Gehl Bros. Manufacturing Co.

Called the Gehl Mix-All, it lists design advantages that make it a practical addition to any livestock or poultry operation where large or small combinations of ingredients are mixed to suit ration and feed formula requirements.



The PTO-driven Gehl Mix-All utilizes a short trough to move the grain through the large grinder throat. Also available is a new auger feeder table that adjusts to wagon bin or bag height. The auger feeder is optional equipment.

For further information write Soybean Digest 10c, Hudson, Iowa.

IN THE MARKETS

PROCESSING OPERATIONS. Reported by Bureau of the Census for July 1959 and August 1959.

Primary products except crude oil at crude oil mill locations: Production, shipments and transfers, and stock, August 1959-July 1959 (1,000 tons)

	Production		Shipments and transfers		Stocks end of month	
	August 1959	July 1959	August 1959	July 1959	Aug. 31, 1959	July 31, 1959
Soybean:						
Cake and meal	697.7	745.7	717.6	782.5	96.5	116.4
Millfeed (hull meal)	14.5	15.8	14.7	16.4	5.1	5.3

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, August 1959-July 1959 (1,000 tons)

	Net receipts at mills[1]		Crushed or used		Stocks at mills	
	August 1959	July 1959	August 1959	July 1959	August 31, 1959	July 31, 1959
U. S.	299.9	701.7	888.8	957.4	501.9	1,090.8
Arkansas	1.7	2.9	18.3	17.4	6.0	22.7
Illinois	117.3	237.3	303.6	322.2	105.9	292.2
Indiana	(2)	(2)	(2)	(2)	(2)	(2)
Iowa	103.2	186.1	171.0	165.5	116.3	184.1
Minnesota	22.6	94.1	58.1	77.3	17.8	53.2
Mississippi	(2)	(2)	(2)	27.6	2.9	5.8
Missouri	(2)	(2)	(2)	(2)	(2)	76.0
Nebraska	(2)	(2)	(2)	(2)	(2)	(2)
North Carolina	(2)	2.6	12.8	15.3	(2)	26.8
Ohio	24.8	54.9	90.8	88.8	62.1	128.0
Tennessee	15.7	34.2	91.7	88.3	47.5	123.6
All other	14.6	89.6	142.5	155.0	143.4	178.4

Note: Detail figures may not add to totals because of independent rounding. [1] Net receipts for each state are derived from the quantity of beans crushed and net change in stocks. [2] Included in "All other" to avoid disclosure of figures for individual companies.

Soybean products: Production and stocks at oil mill locations, by states, August 1959-July 1959

	Crude oil (millions of pounds)				Cake and meal (thousands of tons)[1]			
	Production		Stocks		Production		Stocks	
	August 1959	July 1959	August 31, 1959	July 31, 1959	August 1959	July 1959	August 31, 1959	July 31, 1959
U. S.	318.6	344.1	93.4	118.6	712.2	761.5	101.6	121.7
Arkansas	6.6	6.2	0.7	0.8	14.2	13.6	2.9	4.1
Illinois	110.3	116.9	33.3	45.1	236.8	248.3	26.1	36.9
Indiana	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Iowa	60.2	58.8	16.3	21.5	137.6	134.5	16.8	15.7
Minnesota	20.2	27.1	14.6	11.6	46.4	62.4	6.6	4.1
Mississipi	(2)	11.0	1.5	3.9	(2)	24.0	1.7	7.8
Missouri	(2)	(2)	1.6	(2)	(2)	(2)	3.0	(2)
Nebraska	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
N. Carolina	4.0	4.9	1.5	1.6	9.8	11.7	1.6	3.2
Ohio	31.6	30.1	10.7	9.0	75.9	72.7	5.2	5.4
Tennessee	34.3	31.9	5.7	10.8	73.9	68.9	8.9	7.9
All other	51.4	57.2	7.5	14.3	117.6	125.4	28.8	36.6

Note: Detail figures may not add to totals because of independent rounding. [1] Includes millfeed (hull meal). [2] Included in "All other" to avoid disclosure of figures for individual companies.

PRICES. Average prices for soybeans received by farmers, effective parity, and support rates, reported by Agricultural Marketing Service (dollars per bushel).

Average farm price			Effective parity	Av. price as percent of parity	National average price support rate		
Aug. 15, 1959	July 15, 1959	Aug. 15, 1958	Aug. 15, 1959	Aug. 15, 1959	1959 crop	1958 crop	1957 crop
1.98	2.05	2.11	2.89	69	1.85	2.09	2.09

Average farm and parity prices from crop reporting board.

Soybeans: Average Cash Prices For Specified Months
All prices cents per bushel for No. 1 yellow soybeans

Market	Grade	Aug. 1959	July 1959	June 1959	May 1959	April 1959	Mar. 1959	Aug. 1958
Chicago	No. 1 yellow	215	223	228	234	231	226	227
Toledo	No. 1 yellow	204	212	217	222	220	214	228
Minneapolis	No. 1 yellow	205	213	214	218	215	213	215
Illinois Pts.	No. 1 yellow	200	215	220	223	220	217	226

Note: The monthly average price is the simple average of the daily closing prices. Agricultural Marketing Service.

Soybean prices compared with market value of soybean oil and soybean meal

	Soybean oil		Soybean meal		Value of oil and meal from bushel of soybeans	Market price No. 1 yellow soybeans Ill. pts.	Spread between soybean price and value of oil and meal
	Average price at crushing plant	Value from bu. of soybeans [1]	Bulk price at Decatur	Value from bu. of soybeans [1]			
	Cts. per pound	Dollars	Dollars per ton	Dollars	[1] Dollars	Dollars per bu.	Cents
Aug. 1959	9.3	1.02	54.25	1.27	2.29	2.00	29
July 1959	9.1	1.00	58.50	1.37	2.37	2.15	22
June 1959	9.5	1.04	54.80	1.29	2.33	2.20	13
May 1959	9.5	1.04	55.40	1.30	2.34	2.23	11
Aug. 1958	10.0	1.10	61.00	1.43	2.53	2.26	27

[1] Based on Census Bureau reports that a bushel of soybeans yields 11 pounds of oil and 47 pounds of meal. Note: This table is for statistical comparison only. It does not reflect actual operating margins since prices are simple averages and do not take into account location differentials or actual purchases and sales of soybeans, soybean oil or soybean meal.

MELLORINE. Production of mellorine and mellorine-type frozen desserts in 1958 was a record high 39,571,000 gallons, exceeding the previous record output of 1957 by 16%, according to Agricultural Marketing Service. National production in 1958 was more than three and one-half times that of 1952, when collection of data for these products was begun. Texas was the leading producer of mellorine and mellorine-type frozen dessert, making more than half the nation's total output of 1958. Second ranking California increased production 105% over 1957, making a total of 7,691,000 gallons. Other leading states in order were: Illinois, Missouri, and Oklahoma.

Mellorine-type frozen desserts: Production by states, 1958 (1,000 gallons)

	Ala.	Ark.	Calif.	Ill.	La.	Mo.	Mont.	Okla.	Oreg.	Tex.	U. S. total[1]
Jan.	21	31	397	213	10	206	29	160	30	1,131	2,238
Feb.	28	36	441	224	13	197	19	155	31	1,180	2,335
March	31	47	488	238	24	240	27	194	33	1,421	2,759
April	39	61	622	307	28	242	33	244	31	1,784	3,415
May	52	57	730	306	36	274	33	317	38	2,238	4,105
June	58	76	680	336	51	281	38	387	43	2,405	4,382
July	43	73	1,036	367	48	315	48	349	51	2,414	4,766
Aug.	40	71	800	358	48	308	51	329	48	2,380	4,459
Sept.	50	63	845	303	34	251	31	264	32	1,920	3,808
Oct.	27	43	711	251	29	227	33	214	35	1,431	3,015
Nov.	17	36	430	209	25	186	24	155	27	1,108	2,228
Dec.	23	29	511	188	18	179	23	123	30	932	2,061
Total	429	623	7,691	3,300	364	2,906	389	2,891	429	20,344	39,571
Number of plants	11	18	21	66	11	52	17	154	22	1,054	1,430

[1] Includes several minor producing states for which less than three plants reported.

FACTORY USE VEGETABLE OILS for June 1959 and July 1959. Reported by Bureau of the Census.

Selected edible oils: Production, consumption, and factory and warehouse stocks, July and June 1959 (million pounds)

	Cottonseed oil		Soybean oil	
	July 1959	June 1959	July 1959	June 1959
Production:				
Crude oils	35.0	41.5	344.1	355.2
Refined oils[1]	40.6	60.8	257.7	307.9
Consumption in refining[1]	43.2	65.0	269.0	320.1
Consumption in selected edible and inedible products,[2] total	73.6	90.2	255.1	308.9
Consumption in edible products, total	73.3	89.9	239.7	290.7
Baking or frying fats	19.3	25.9	71.6	94.8
Salad or cooking oil	43.6	53.3	85.4	107.6
Margarine	8.4	8.6	80.0	84.8
Other edible products[3]	2.0	3.0	2.7	3.5
Stocks, end of month[2], total	214.2	*273.5	468.0	472.9
Crude oils	34.8	63.5	249.5	256.5
Refined oils	179.4	*210.0	218.5	216.4

Note: Total consumption of oils in each end product may exceed sum of detail since only major edible oils are shown separately. *Revised. [1] Production of refined oils covers only once-refined oil. Degummed soybean oil is reported as crude oil. [2]Includes hydrogenated fats (vegetable and animal) and other fats and oils "in process," (e.g. refined cottonseed includes stocks of stearin). [3]Includes confectioners fats.

Consumption of vegetable oils in fatty acids (million pounds)

	Total consumption b/				Used in fatty acids				Percent used in fatty acids			
	July		Cum.: Jan.-July		July		Cum.: Jan.-July		July		Cum.: Jan.-July	
	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958	1959	1958
Vegetable oil foots	8.9	11.8	85.7	82.1	5.5	5.6	55.1	42.4	63%	47%	64%	52%

Source: U. S. Bureau of the Census.

INSPECTIONS. Soybeans inspected by grade and percent, reported by Agricultural Marketing Service.[1]

	August 1959[2]		July 1959		August 1958		Oct. 1958-Aug. 1959		Oct. 1957-Aug. 1958	
	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.
No. 1	3,400	28	6,049	27	3,438	24	91,315	25	78,379	23
No. 2	5,548	46	10,750	48	6,749	47	171,025	48	147,036	43
No. 3	1,973	16	3,369	15	2,743	19	63,528	18	79,771	24
No. 4	872	7	1,398	6	1,109	8	24,390	7	26,766	8
Sample	326	3	859	4	294	2	9,495	2	7,814	2
Total	12,119	100	22,425	100	14,333	100	359,753	100	339,766	100

[1] Carlot receipts have been converted to bushels on the basis that 1 carlot equals 1,750 bushels. [2]Of the August receipts, all were yellow soybeans. Inspections of soybeans in August included 3,308,413 bushels as cargo lots, 649,842 bushels as truck receipts, and the balance as carlot receipts. Based on reports of inspections by licensed inspectors at all markets.

Soybeans: Inspected receipts and shipments by carlot, July 1958-June 1959

	Receipts	Shipments		Receipts	Shipments
Baltimore	4,551	1,760	Peoria	46,349	414
Cedar Rapids	16,268	585	Philadelphia	880	408
Chicago	12,757	3,948	St. Joseph	692	129
Cincinnati	3,192	835	St. Louis	4,826	1,663
Fort Worth	455	1	Sioux City	258	20
Indianapolis	6,566	806	Toledo	16,867	2,274
Kansas City	4,088	1,542	Wichita	347	46
Louisville	2,241	114	Total carlots	164,088	19,516
Memphis	14,432	1,983	Equivalent in [1]		
Milwaukee	443	193	1,000 bushels	287,154	34,153
Minneapolis	9,301	2,258	**1957-58**		
Nashville	76	44	Total carlots	144,759	15,921
New Orleans	17,999	32	Equivalent in [1]		
Omaha	1,202	461	1,000 bushels	253,328	27,862

[1] Carlots converted to bushels at 1,750 bushels per carlot.

PRICE SUPPORT operations reported by Agricultural Marketing Service.

Soybeans: Amount owned and controlled by CCC July 1, 1959 (million bushels)

A.	Grain owned by CCC		
1.	Stored in commercial facilities	39.9	
2.	Stored in bins and maritime fleet	.1	
3.	In transit	2.3	
4.	Total owned by CCC	42.3	
B.	Old grain under price support		
1.	Reseal on farms	10.1	
2.	Delivered to CCC in July	10.4	
3.	Not otherwise accounted for [1]	10.1	
4.	Total outstanding	30.6	
C.	Total old grain owned and controlled by CCC	72.9	
D.	Total stocks of old grain all positions	157.1	
E.	Percent owned and controlled by CCC	46	

[1] Estimates of grain under Purchase Agreement to be delivered or converted to reseal, and loans outstanding on July 1, 1959, all of which were on hand on such date, but have not been accounted for in other items of data. Grain Division, CSS.

SUPPLY, DISTRIBUTION of soybeans, 1955-58, reported by Agricultural Marketing Service (1,000 bushels).

	1958-59	1957-58	1956-57	1955-56
Carryover, Oct. 1	21,083	9,897	3,731	9,949
Production	574,413	483,715	449,446	373,522
Total supply[1]	595,496	493,612	453,177	383,471
Farm use, including seed for season	31,000	34,000	42,000	30,000
Quantity remaining for processing, export, or carryover	564,496	459,612	411,177	353,471
Disappearance, October through Aug. 31:				
Crushed for oil or processed [2]	373,773	328,739	293,705	263,250
Exported[3]	105,117	83,858	80,852	64,604
Total	478,890	412,597	374,557	327,854
Balance on Sept. 1 for processing, export, or carryover	85,606	47,015	36,620	25,617

[1] Imports not included because negligible. [2] No allowance is made for new crop crushings prior to Oct. 1. [3] Equals estimated.

EXPORTS. Preliminary data on U. S. exports of soybeans and soybean oil for July 1959, with comparable data for July 1958 and cumulative totals for the marketing years 1957-58 and 1958-59 to date, from Foreign Agricultural Service, U. S. Department of Agriculture.

	Unit	July 1958	July 1959	October-July 1957-58	October-July 1958-59
Soybeans	bu.	6,389,084	9,850,005	77,353,968	98,136,551
Soybean oil:					
Crude	lb.	8,005,380	[1] 96,266,091	134,047,681	339,418,744
Refined but not further processed	lb.	989,679	26,426,403	123,931,450	76,586,562
Refined, deodorized and hydrogenated	lb.	55,401,362	32,693,984	351,786,408	276,289,889

[1] Includes 19,841,400 pounds shipped in June but not previously reported.

Soybeans: Inspections for export by coastal areas and country of destination August 1959 (1,000 bushels)

Atlantic		Japan	1,916
United Kingdom	149	Other	218
Netherlands	88	Subtotal	4,779
Japan	115	**Great Lakes**	
Other	51	Canada	1,147
Subtotal	403	Norway	30
Gulf		Netherlands	179
Norway	71	West Germany	234
Netherlands	734	Subtotal	1,590
West Germany	922	Grand total	6,772
Taiwan (Formosa)	421	Total Jan.-Aug. 1959	64,920
Israel	497		

Based on weekly reports of inspections for export by licensed inspectors and does not include rail or truck movement to Canada or Mexico. In some cases, the ultimate destination of the soybeans exported is not shown on the inspection reports. Therefore, the quantity for each country may vary from official Census data which are based on custom declarations.

Soybeans: Inspections for exports by ports and Great Lakes shipments August 1959 (1,000 bushels)

Atlantic		**Lake ports**	
Baltimore	42	Chicago	1,257
Norfolk	199	Toledo and Carrollton	333
Subtotal	[1] 403	Subtotal	1,590
Gulf		Totals	
New Orleans	2,796	August 1959	6,772
Mobile	410	Jan.-Aug. 1959	64,920
Port Allen	1,573	Jan.-Aug. 1958	43,232
Subtotal	4,779		

Based on weekly reports of inspections for export by licensed inspectors and does not include rail and truck movement to Canada or Mexico. [1]Includes 162,828 bushels shipped from Morehead City, N. C.

Cottonseed and soybean oils and lard: Exports under Title I, Public Law 480 programs, and total exports, October 1954-July 1959 (million pounds)

	Oct. 1-Sept. 30 1954-55	1955-56	1956-57	1957-58	Oct. 1-July 31 1957-58	1958-59
Exports under P. L. 480:						
Cottonseed	117	291	55	97	95	111
Soybean	.....	279	495	592	429	572
Total oils	117	570	550	689	524	683
Lard	.....	112	65	3	3	.....
Total exports:						
Cottonseed	[1] 710	[1] 611	423	248	243	[2] 337
Soybean	50	557	807	803	610	[2] 663
Total oils	760	1,168	1,230	1,051	853	[2] 1,000
Lard[3]	528	663	530	394	341	[2] 429

The Department of Agriculture reports exports of agricultural commodities under Title I of Public Law 480 are based on the date a commodity is placed "on board" the carrier bound for a foreign destination. The U. S. Bureau of the Census reports total exports based on the date the carrier clears a U. S. port for a foreign destination. Hence, for any given month the reports from these two sources may differ. [1] Includes foreign donations under Section 416, Title III, Public Law 480. [2] July exports estimated. [3] Revised to exclude shipments to U. S. territories.

Title I, P. L. 480 exports for July-August 1959

	August 1959		July 1959-August 1959	
	Metric tons	Pounds	Metric tons	Pounds
Cottonseed oil	7,662	16,891,000	25,320	55,822,000
Soybean oil	24,634	54,308,000	64,771	142,795,000

Foreign Agricultural Service.

NOW AVAILABLE

New Literature on CARTER SCALPERATORS

If you clean, rough scalp, or aspirate grains, seeds, and other free-flowing granular materials you'll want the information this literature contains.

- Describes the basic operation of Carter Scalperators
- Diagrams construction features
- Illustrates and reports on various models of Carter Scalperators available to meet specific needs.

Mail in this coupon:
Get up to date on Carter Scalperators. Write for your free informative literature today.

SIMON-CARTER CO.
689 19th Ave. N.E. Minneapolis 18, Minn.

Please send me your new literature on Carter Scalperators.

NAME_____
COMPANY_____
ADDRESS_____
Grains handled_____
Approximate hourly capacity required_____

UNIVERSITY MICROFILMS
313 N. FIRST ST.
ANN ARBOR, MICHIGAN

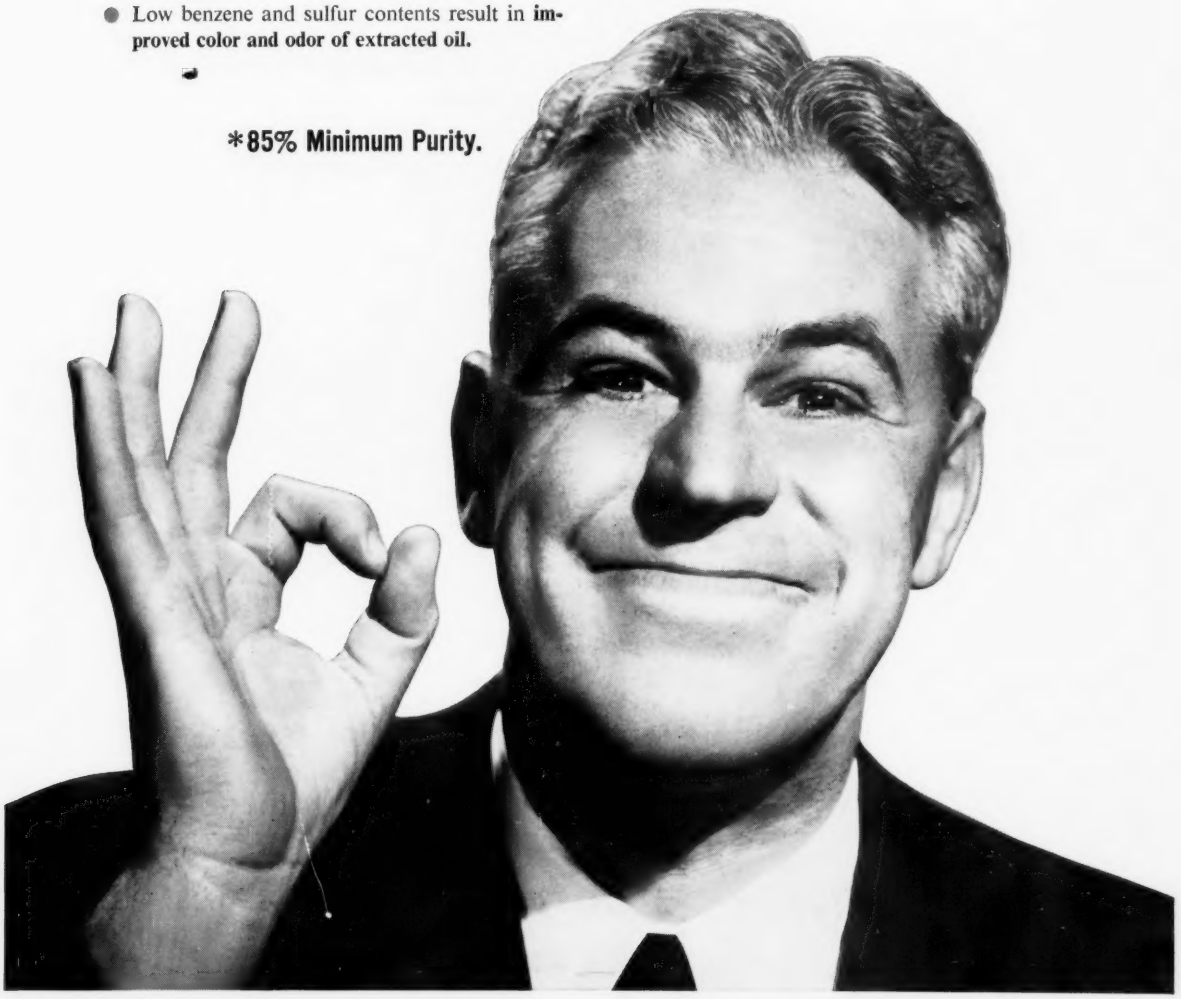
"We're getting Results... since we switched to Phillips High Purity* Normal Hexane"

And little wonder! This new improved solvent is specially made for oilseed processing . . . and it's available at NO INCREASE IN PRICE. Yet, look at these extra benefits:

- High Normal Hexane content permits **more efficient operation at higher temperatures.**
- Narrow boiling range results in **improved solvent recovery.**
- Low benzene and sulfur contents result in **improved color and odor of extracted oil.**
- Lower specific gravity assures **better solvent separation and fewer emulsion problems.**

For immediate delivery from one of many convenient shipping points, call or write today. Complete information and a sample of Phillips High Purity Normal Hexane available on request.

***85% Minimum Purity.**



PHILLIPS PETROLEUM COMPANY

Special Products Division

Bartlesville, Oklahoma Phone: FEderal 6-6600